SEVERN TRENT STL

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ANALYTICAL REPORT

PROJECT NO. 216-A-8

F05-023

Lot #: F5F220233
SDG #: W04649

AUG 2005
RECEIVED

Steve Trent

Fluor Hanford Inc
PO Box 1000 T6-03
Richland, WA 99352

SEVERN TRENT LABORATORIES, INC.

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NOV 09 2005
EDMC

Melania Harris
Project Manager

August 5, 2005

Case Narrative
LOT NUMBER: F5F220233
SDG:W04649

This report contains the analytical results for the three samples received under chain of custody by STL St. Louis on June 22, 2005. These samples are associated with your F05-023 project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by STL St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

There was insufficient sample provided to perform the requested analysis at the method specified amounts. A reduced sample amount was prepared. The reporting limits have been elevated accordingly.

Semi-Volatiles method 8270C
There was insufficient sample volume to perform MS/MSD analysis. The LCS/LCSD RPD is not within method acceptance criteria. LCS/LCSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix.
Affected Samples:
F5F220233 (1): B1D9Y4
F5F220233 (3): B1D9Y5

Mercury method 7471A
The sample was analyzed at a dilution due to the presence of matrix interferences; the sample has high levels of radioactivity. The reporting limit has been adjusted for the dilution.
Affected Samples:
F5F220233 (1): B1D9Y4

Case Narrative
LOT NUMBER: F5F220233
SDG:W04649

Volatiles method 8260B
The LCS surrogate recovery for Dibromofluoromethane is outside acceptance limits. LCS spike recoveries are within QC limits demonstrating acceptable sample extraction and instrument performance. There is an apparent anomaly in the surrogate addition, isolated to the LCS and not indicative of the batch.
Affected Samples:
F5F220233 (1): B1D9Y4
F5F220233 (2): B1DB24
F5F220233 (3): B1D9Y5

Nitrate-Nitrite method 353.1
The MS recovery for nitrate/nitrite is outside the established QC limits. Matrix interference is evident in the sample. Method performance is demonstrated by acceptable LCS recovery
Affected Samples:
F5F220233 (1): B1D9Y4
F5F220233 (3): B1D9Y5

TPH Diesel/Kerosene method 8015 Mod
The Method Blank surrogate (s) recoveries are outside acceptance limits. Samples, associated with this method blank, demonstrated acceptable surrogate recoveries indicating the surrogate excursion is isolated to the method blank and not indicative of the batch.
Affected Samples:
F5F220233 (1): B1D9Y4
F5F220233 (3): B1D9Y5

PCBs method 8082
The MS/MSD recovery for Aroclor 1260 is outside the established QC limits on both channels. The MSD recovery for Aroclor 1016 is above the QC limit on both channels and the recovery for the DCB surrogate is above QC limits on channel B only.

The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery.
Affected Samples:
F5F220233 (1): B1D9Y4
F5F220233 (3): B1D9Y5

Case Narrative
LOT NUMBER: F5F220233
SDG:W04649

Metals method 6010B
The MS (MSD) recovery for Antimony is outside the established QC limits. The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery.
Affected Samples:
F5F220233 (1): B1D9Y4
F5F220233 (3): B1D9Y5

Oil & Grease method 9071A
There was insufficient sample volume to perform MS/MSD analysis. A LCS and LCSD were performed to demonstrate accuracy and replicate precision.
Affected Samples:
F5F220233 (1): B1D9Y4

TOC & TIC method 9060
The MS recovery and RPD for TOC and TIC is outside the established QC limits. A matrix interference is physically evident in the sample. Method performance is demonstrated by acceptable LCS recovery. No further action is required.
Affected Samples:
F5F220233 (1): B1D9Y4
F5F220233 (3): B1D9Y5

SAMPLE SUMMARY

W04649 : F5F220233

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HD57V	001	B1D9Y4	06/08/05	09:20
HD594	002	B1DB24	06/09/05	09:25
HD6CT	003	B1D9Y5	06/08/05	14:25

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

METHODS SUMMARY

W04649

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Chloride	MCAWW 300.0A	MCAWW 300.0A
Extractable Petroleum Hydrocarbons	SW846 8015 MOD	SW846 3550
Fluoride	MCAWW 300.0A	MCAWW 300.0A
Hexavalent Chromium	SW846 7196A	SW846 3060A
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrate-Nitrite	MCAWW 353.1	
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Nitrogen, Ammonia	MCAWW 350.1	MCAWW 350.1
Oil & Grease (Gravimetric)	SW846 9071A	
Percent Moisture	MCAWW 160.3 MOD	MCAWW 160.3 MOD
Phosphate as P, Ortho	MCAWW 300.0A	MCAWW 300.0A
PCBs by SW-846 8082	SW846 8082	SW846 3550B/366
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3550B
Soil and Waste pH	SW846 9045C	SW846 DI-LEACHA
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Total Inorganic Carbon	SW846 9060	
Total Organic Carbon	SW846 9060	SW846 9060
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

FLUOR HANFORD IC

Client Sample ID: B1D9Y4

GC/MS Volatiles

Lot-Sample #...: F5F220233-001 **Work Order #...:** HD57V1A3 **Matrix.....:** SOLID
Date Sampled...: 06/08/05 **Date Received..:** 06/22/05
Prep Date.....: 06/22/05 **Analysis Date..:** 06/22/05
Prep Batch #...: 5174072
Dilution Factor: 5
% Moisture.....: **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1-Butanol	ND	500	ug/kg	44
n-Butylbenzene	ND	25	ug/kg	3.0
Cyclohexane	ND	50	ug/kg	1.5
cis-1,2-Dichloroethene	ND	25	ug/kg	2.4
trans-1,2-Dichloroethene	ND	25	ug/kg	3.4
Trichlorofluoromethane	ND	25	ug/kg	3.2
Tetrahydrofuran	ND	120	ug/kg	6.2
Cyclohexanone	ND	500	ug/kg	14
Chloromethane	ND	50	ug/kg	4.6
Bromomethane	ND	50	ug/kg	3.2
Chloroethane	ND	50	ug/kg	2.6
Acetone	**19 J**	**100**	**ug/kg**	**6.5**
1,1-Dichloroethene	ND	25	ug/kg	3.4
Acetonitrile	ND	250	ug/kg	26
Methylene chloride	ND	25	ug/kg	13
Carbon disulfide	ND	25	ug/kg	0.50
1,1-Dichloroethane	ND	25	ug/kg	2.7
2-Butanone	ND	100	ug/kg	3.8
1,2-Dichloroethene (total)	ND	50	ug/kg	1.1
Chloroform	ND	25	ug/kg	2.6
1,1,1-Trichloroethane	ND	25	ug/kg	2.8
Carbon tetrachloride	ND	25	ug/kg	2.2
1,2-Dichloroethane	ND	25	ug/kg	2.1
Benzene	ND	25	ug/kg	0.65
Trichloroethene	ND	25	ug/kg	2.2
1,2-Dichloropropane	ND	25	ug/kg	2.3
Bromodichloromethane	ND	25	ug/kg	2.0
4-Methyl-2-pentanone	ND	100	ug/kg	3.4
cis-1,3-Dichloropropene	ND	25	ug/kg	1.4
Toluene	ND	25	ug/kg	1.6
trans-1,3-Dichloropropene	ND	25	ug/kg	2.0
1,1,2-Trichloroethane	ND	25	ug/kg	3.8
2-Hexanone	ND	100	ug/kg	3.4
Tetrachloroethene	ND	25	ug/kg	2.8
Dibromochloromethane	ND	25	ug/kg	1.3
Chlorobenzene	ND	25	ug/kg	2.7
Ethylbenzene	ND	25	ug/kg	2.2

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FLUOR HANFORD IC

Client Sample ID: B1D9Y4

GC/MS Volatiles

Lot-Sample #...: F5F220233-001 **Work Order #...:** HD57V1A3 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Vinyl chloride	ND	25	ug/kg	3.6
Xylenes (total)	ND	50	ug/kg	6.3
Styrene	ND	25	ug/kg	2.4
Bromoform	ND	25	ug/kg	3.1
1,1,2,2-Tetrachloroethane	ND	25	ug/kg	0.60
1,2,4-Trimethylbenzene	ND	25	ug/kg	2.8
n-Hexane	ND	50	ug/kg	4.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	105	(60 - 148)
Dibromofluoromethane	100	(61 - 140)
1,2-Dichloroethane-d4	103	(56 - 149)
4-Bromofluorobenzene	107	(56 - 150)

NOTE(S):

J Estimated result. Result is less than RL.

FLUOR HANFORD IC

B1D9Y4

GC/MS Volatiles

Lot-Sample #: F5F220233-001 **Work Order #:** HD57V1A3 **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

FLUOR HANFORD IC

Client Sample ID: B1DB24

GC/MS Volatiles

Lot-Sample #...: F5F220233-002 **Work Order #...:** HD5941AA **Matrix.....:** SOLID
Date Sampled...: 06/09/05 **Date Received..:** 06/22/05
Prep Date.....: 06/22/05 **Analysis Date..:** 06/22/05
Prep Batch #...: 5174072
Dilution Factor: 1
% Moisture.....: 4.2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1-Butanol	ND	100	ug/kg	8.7
n-Butylbenzene	ND	5.0	ug/kg	0.60
Cyclohexane	ND	10	ug/kg	0.30
cis-1,2-Dichloroethene	ND	5.0	ug/kg	0.48
trans-1,2-Dichloroethene	ND	5.0	ug/kg	0.69
Trichlorofluoromethane	ND	5.0	ug/kg	0.64
Tetrahydrofuran	ND	25	ug/kg	1.2
Cyclohexanone	ND	100	ug/kg	2.7
Chloromethane	ND	10	ug/kg	0.93
Bromomethane	ND	10	ug/kg	0.64
Chloroethane	ND	10	ug/kg	0.52
Acetone	**5.0 J**	**20**	**ug/kg**	**1.3**
1,1-Dichloroethene	ND	5.0	ug/kg	0.67
Acetonitrile	**12 J**	**50**	**ug/kg**	**5.3**
Methylene chloride	ND	5.0	ug/kg	2.6
Carbon disulfide	ND	5.0	ug/kg	0.10
1,1-Dichloroethane	ND	5.0	ug/kg	0.54
2-Butanone	ND	20	ug/kg	0.76
1,2-Dichloroethene (total)	ND	10	ug/kg	0.22
Chloroform	ND	5.0	ug/kg	0.52
1,1,1-Trichloroethane	ND	5.0	ug/kg	0.55
Carbon tetrachloride	ND	5.0	ug/kg	0.45
1,2-Dichloroethane	ND	5.0	ug/kg	0.42
Benzene	ND	5.0	ug/kg	0.13
Trichloroethene	ND	5.0	ug/kg	0.44
1,2-Dichloropropane	ND	5.0	ug/kg	0.46
Bromodichloromethane	ND	5.0	ug/kg	0.39
4-Methyl-2-pentanone	ND	20	ug/kg	0.67
cis-1,3-Dichloropropene	ND	5.0	ug/kg	0.27
Toluene	ND	5.0	ug/kg	0.33
trans-1,3-Dichloropropene	ND	5.0	ug/kg	0.40
1,1,2-Trichloroethane	ND	5.0	ug/kg	0.75
2-Hexanone	ND	20	ug/kg	0.68
Tetrachloroethene	ND	5.0	ug/kg	0.55
Dibromochloromethane	ND	5.0	ug/kg	0.26
Chlorobenzene	ND	5.0	ug/kg	0.54
Ethylbenzene	ND	5.0	ug/kg	0.44

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FLUOR HANFORD IC

Client Sample ID: B1DB24

GC/MS Volatiles

Lot-Sample #...: F5F220233-002 **Work Order #...:** HD5941AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Vinyl chloride	ND	5.0	ug/kg	0.71
Xylenes (total)	ND	10	ug/kg	1.3
Styrene	ND	5.0	ug/kg	0.47
Bromoform	ND	5.0	ug/kg	0.62
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	0.12
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	0.57
n-Hexane	ND	10	ug/kg	0.84

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	106	(60 - 148)
Dibromofluoromethane	104	(61 - 140)
1,2-Dichloroethane-d4	106	(56 - 149)
4-Bromofluorobenzene	98	(56 - 150)

NOTE(S):

J Estimated result. Result is less than RL.

FLUOR HANFORD IC

B1DB24

GC/MS Volatiles

Lot-Sample #: F5F220233-002 **Work Order #:** HD5941AA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Ethyl acetate	141-78-6	23	M	7.143	ug/kg
Unknown		5.7	M	26.882	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

FLUOR HANFORD IC

Client Sample ID: B1D9Y5

GC/MS Volatiles

Lot-Sample #...: F5F220233-003 **Work Order #...:** HD6CT1AE **Matrix.....:** SOLID
Date Sampled...: 06/08/05 **Date Received..:** 06/22/05
Prep Date.....: 06/22/05 **Analysis Date..:** 06/22/05
Prep Batch #...: 5174072
Dilution Factor: 1
% Moisture.....: **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1-Butanol	ND	100	ug/kg	8.7
n-Butylbenzene	ND	5.0	ug/kg	0.60
Cyclohexane	ND	10	ug/kg	0.30
cis-1,2-Dichloroethene	ND	5.0	ug/kg	0.48
trans-1,2-Dichloroethene	ND	5.0	ug/kg	0.69
Trichlorofluoromethane	ND	5.0	ug/kg	0.64
Tetrahydrofuran	ND	25	ug/kg	1.2
Cyclohexanone	ND	100	ug/kg	2.7
Chloromethane	ND	10	ug/kg	0.93
Bromomethane	ND	10	ug/kg	0.64
Chloroethane	ND	10	ug/kg	0.52
Acetone	**3.3 J**	**20**	**ug/kg**	**1.3**
1,1-Dichloroethene	ND	5.0	ug/kg	0.67
Acetonitrile	ND	50	ug/kg	5.3
Methylene chloride	ND	5.0	ug/kg	2.6
Carbon disulfide	ND	5.0	ug/kg	0.10
1,1-Dichloroethane	ND	5.0	ug/kg	0.54
2-Butanone	ND	20	ug/kg	0.76
1,2-Dichloroethene (total)	ND	10	ug/kg	0.22
Chloroform	ND	5.0	ug/kg	0.52
1,1,1-Trichloroethane	ND	5.0	ug/kg	0.55
Carbon tetrachloride	ND	5.0	ug/kg	0.45
1,2-Dichloroethane	ND	5.0	ug/kg	0.42
Benzene	ND	5.0	ug/kg	0.13
Trichloroethene	ND	5.0	ug/kg	0.44
1,2-Dichloropropane	ND	5.0	ug/kg	0.46
Bromodichloromethane	ND	5.0	ug/kg	0.39
4-Methyl-2-pentanone	ND	20	ug/kg	0.67
cis-1,3-Dichloropropene	ND	5.0	ug/kg	0.27
Toluene	ND	5.0	ug/kg	0.33
trans-1,3-Dichloropropene	ND	5.0	ug/kg	0.40
1,1,2-Trichloroethane	ND	5.0	ug/kg	0.75
2-Hexanone	ND	20	ug/kg	0.68
Tetrachloroethene	ND	5.0	ug/kg	0.55
Dibromochloromethane	ND	5.0	ug/kg	0.26
Chlorobenzene	ND	5.0	ug/kg	0.54
Ethylbenzene	ND	5.0	ug/kg	0.44

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FLUOR HANFORD IC

Client Sample ID: B1D9Y5

GC/MS Volatiles

Lot-Sample #...: F5F220233-003 **Work Order #...:** HD6CT1AE **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Vinyl chloride	ND	5.0	ug/kg	0.71
Xylenes (total)	ND	10	ug/kg	1.3
Styrene	ND	5.0	ug/kg	0.47
Bromoform	ND	5.0	ug/kg	0.62
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	0.12
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	0.57
n-Hexane	ND	10	ug/kg	0.84

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	93	(60 - 148)
Dibromofluoromethane	98	(61 - 140)
1,2-Dichloroethane-d4	98	(56 - 149)
4-Bromofluorobenzene	96	(56 - 150)

NOTE(S):

J Estimated result. Result is less than RL.

FLUOR HANFORD IC

B1D9Y5

GC/MS Volatiles

Lot-Sample #: F5F220233-003 **Work Order #:** HD6CT1AE **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Ethyl acetate	141-76-6	13	M	7.129	ug/kg
Unknown organic acid		5.7	M	24.831	ug/kg
Unknown		7.4	M	26.885	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: W04649 **Work Order #...:** HD85R1AA **Matrix.....:** SOLID
MB Lot-Sample #: F5F230000-072

Prep Date.....: 06/22/05
Analysis Date..: 06/22/05 **Prep Batch #...:** 5174072
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1-Butanol	ND	100	ug/kg	SW846 8260B
n-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
Cyclohexane	ND	10	ug/kg	SW846 8260B
Cyclohexanone	ND	100	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/kg	SW846 8260B
Tetrahydrofuran	ND	25	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Acetone	ND	20	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
Acetonitrile	ND	50	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Carbon disulfide	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
2-Butanone	ND	20	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
4-Methyl-2-pentanone	ND	20	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
2-Hexanone	ND	20	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Dibromochloromethane	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	10	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: W04649 **Work Order #...:** HD85R1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromoform	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	SW846 8260B
n-Hexane	ND	10	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	108	(60 - 148)
Dibromofluoromethane	101	(61 - 140)
1,2-Dichloroethane-d4	106	(56 - 149)
4-Bromofluorobenzene	104	(56 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

FLUOR HANFORD IC

Method Blank Report

GC/MS Volatiles

Lot-Sample #: F5F230000-072 B **Work Order #:** HD85R1AA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: W04649 Work Order #...: HD85R1AC Matrix.....: SOLID
LCS Lot-Sample#: F5F230000-072
Prep Date.....: 06/22/05 Analysis Date..: 06/22/05
Prep Batch #...: 5174072
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
n-Butylbenzene	50.0	52.5	ug/kg	105	SW846 8260B
Cyclohexanone	500	177	ug/kg	35	SW846 8260B
cis-1,2-Dichloroethene	50.0	58.7	ug/kg	117	SW846 8260B
trans-1,2-Dichloroethene	50.0	60.2	ug/kg	120	SW846 8260B
Tetrahydrofuran	50.0	51.7	ug/kg	103	SW846 8260B
Trichlorofluoromethane	50.0	62.7	ug/kg	125	SW846 8260B
Chloromethane	50.0	42.6	ug/kg	85	SW846 8260B
Bromomethane	50.0	33.9	ug/kg	68	SW846 8260B
Chloroethane	50.0	58.0	ug/kg	116	SW846 8260B
Acetone	50.0	46.0	ug/kg	92	SW846 8260B
1,1-Dichloroethene	50.0	52.6	ug/kg	105	SW846 8260B
Methylene chloride	50.0	62.6	ug/kg	125	SW846 8260B
Carbon disulfide	50.0	65.1	ug/kg	130	SW846 8260B
1,1-Dichloroethane	50.0	57.2	ug/kg	114	SW846 8260B
2-Butanone	50.0	61.4	ug/kg	123	SW846 8260B
1,2-Dichloroethene (total)	100	119	ug/kg	119	SW846 8260B
Chloroform	50.0	60.0	ug/kg	120	SW846 8260B
1,1,1-Trichloroethane	50.0	62.4	ug/kg	125	SW846 8260B
Carbon tetrachloride	50.0	54.4	ug/kg	109	SW846 8260B
1,2-Dichloroethane	50.0	49.0	ug/kg	98	SW846 8260B
Benzene	50.0	49.7	ug/kg	99	SW846 8260B
Trichloroethene	50.0	48.7	ug/kg	97	SW846 8260B
1,2-Dichloropropane	50.0	48.0	ug/kg	96	SW846 8260B
Bromodichloromethane	50.0	50.0	ug/kg	100	SW846 8260B
4-Methyl-2-pentanone	50.0	43.1	ug/kg	86	SW846 8260B
cis-1,3-Dichloropropene	50.0	51.5	ug/kg	103	SW846 8260B
Toluene	50.0	49.1	ug/kg	98	SW846 8260B
trans-1,3-Dichloropropene	50.0	55.1	ug/kg	110	SW846 8260B
1,1,2-Trichloroethane	50.0	48.2	ug/kg	96	SW846 8260B
2-Hexanone	50.0	47.3	ug/kg	95	SW846 8260B
Tetrachloroethene	50.0	45.3	ug/kg	91	SW846 8260B
Dibromochloromethane	50.0	52.4	ug/kg	105	SW846 8260B
Chlorobenzene	50.0	50.0	ug/kg	100	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: W04649 **Work Order #...:** HD85R1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F5F230000-072

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Ethylbenzene	50.0	51.7	ug/kg	103	SW846 8260B
Vinyl chloride	50.0	52.4	ug/kg	105	SW846 8260B
Styrene	50.0	53.2	ug/kg	106	SW846 8260B
Bromoform	50.0	45.1	ug/kg	90	SW846 8260B
1,1,2,2-Tetrachloroethane	50.0	49.1	ug/kg	98	SW846 8260B
n-Hexane	50.0	56.0	ug/kg	112	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	109	(72 - 131)
Dibromofluoromethane	131 *	(74 - 128)
1,2-Dichloroethane-d4	105	(69 - 134)
4-Bromofluorobenzene	111	(70 - 131)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: W04649 Work Order #...: HD5941AD-MS Matrix.....: SOLID
MS Lot-Sample #: F5F220233-002 HD5941AE-MSD
Date Sampled...: 06/09/05 Date Received..: 06/22/05
Prep Date.....: 06/22/05 Analysis Date..: 06/22/05
Prep Batch #...: 5174072
Dilution Factor: 1 % Moisture.....: 4.2

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
n-Butylbenzene	ND	49.6	52.5	ug/kg	106		SW846 8260B
	ND	49.9	51.4	ug/kg	103	2.1	SW846 8260B
Cyclohexanone	ND	496	194	ug/kg	39		SW846 8260B
	ND	499	192	ug/kg	38	1.3	SW846 8260B
cis-1,2-Dichloroethene	ND	49.6	49.2	ug/kg	99		SW846 8260B
	ND	49.9	50.8	ug/kg	102	3.3	SW846 8260B
trans-1,2-Dichloroethene	ND	49.6	47.8	ug/kg	96		SW846 8260B
	ND	49.9	50.7	ug/kg	102	5.9	SW846 8260B
Trichlorofluoromethane	ND	49.6	50.5	ug/kg	102		SW846 8260B
	ND	49.9	54.8	ug/kg	110	8.3	SW846 8260B
Chloromethane	ND	49.6	35.6	ug/kg	72		SW846 8260B
	ND	49.9	42.2	ug/kg	85	17	SW846 8260B
Bromomethane	ND	49.6	29.1	ug/kg	59		SW846 8260B
	ND	49.9	30.7	ug/kg	62	5.4	SW846 8260B
Chloroethane	ND	49.6	45.7	ug/kg	92		SW846 8260B
	ND	49.9	49.7	ug/kg	100	8.3	SW846 8260B
Acetone	5.0	49.6	40.6	ug/kg	72		SW846 8260B
	5.0	49.9	43.1	ug/kg	76	6.0	SW846 8260B
1,1-Dichloroethene	ND	49.6	42.7	ug/kg	86		SW846 8260B
	ND	49.9	43.7	ug/kg	88	2.4	SW846 8260B
Methylene chloride	ND	49.6	52.4	ug/kg	106		SW846 8260B
	ND	49.9	51.1	ug/kg	102	2.5	SW846 8260B
Carbon disulfide	ND	49.6	53.0	ug/kg	107		SW846 8260B
	ND	49.9	55.0	ug/kg	110	3.7	SW846 8260B
1,1-Dichloroethane	ND	49.6	47.9	ug/kg	97		SW846 8260B
	ND	49.9	50.6	ug/kg	101	5.4	SW846 8260B
2-Butanone	ND	49.6	47.5	ug/kg	96		SW846 8260B
	ND	49.9	50.1	ug/kg	100	5.3	SW846 8260B
1,2-Dichloroethene (total)	ND	99.2	96.9	ug/kg	98		SW846 8260B
	ND	99.8	102	ug/kg	102	4.6	SW846 8260B
Chloroform	ND	49.6	49.2	ug/kg	99		SW846 8260B
	ND	49.9	51.4	ug/kg	103	4.4	SW846 8260B
1,1,1-Trichloroethane	ND	49.6	49.6	ug/kg	100		SW846 8260B
	ND	49.9	50.8	ug/kg	102	2.4	SW846 8260B
Carbon tetrachloride	ND	49.6	52.1	ug/kg	105		SW846 8260B
	ND	49.9	53.0	ug/kg	106	1.6	SW846 8260B
1,2-Dichloroethane	ND	49.6	50.4	ug/kg	102		SW846 8260B
	ND	49.9	53.8	ug/kg	108	6.6	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: W04649 Work Order #...: HD5941AD-MS Matrix.....: SOLID
MS Lot-Sample #: F5F220233-002 HD5941AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	ND	49.6	51.1	ug/kg	103		SW846 8260B
	ND	49.9	49.7	ug/kg	100	2.9	SW846 8260B
Trichloroethene	ND	49.6	50.3	ug/kg	101		SW846 8260B
	ND	49.9	50.5	ug/kg	101	0.39	SW846 8260B
1,2-Dichloropropane	ND	49.6	50.1	ug/kg	101		SW846 8260B
	ND	49.9	52.4	ug/kg	105	4.4	SW846 8260B
Bromodichloromethane	ND	49.6	50.6	ug/kg	102		SW846 8260B
	ND	49.9	52.1	ug/kg	104	3.1	SW846 8260B
4-Methyl-2-pentanone	ND	49.6	44.8	ug/kg	90		SW846 8260B
	ND	49.9	48.3	ug/kg	97	7.4	SW846 8260B
cis-1,3-Dichloropropene	ND	49.6	50.7	ug/kg	102		SW846 8260B
	ND	49.9	53.4	ug/kg	107	5.3	SW846 8260B
Toluene	ND	49.6	50.1	ug/kg	101		SW846 8260B
	ND	49.9	49.7	ug/kg	100	0.90	SW846 8260B
trans-1,3-Dichloropropene	ND	49.6	54.3	ug/kg	109		SW846 8260B
	ND	49.9	58.8	ug/kg	118	7.9	SW846 8260B
1,1,2-Trichloroethane	ND	49.6	51.3	ug/kg	104		SW846 8260B
	ND	49.9	53.4	ug/kg	107	3.9	SW846 8260B
2-Hexanone	ND	49.6	50.0	ug/kg	101		SW846 8260B
	ND	49.9	53.8	ug/kg	108	7.2	SW846 8260B
Tetrachloroethene	ND	49.6	46.0	ug/kg	93		SW846 8260B
	ND	49.9	46.6	ug/kg	93	1.2	SW846 8260B
Dibromochloromethane	ND	49.6	52.1	ug/kg	105		SW846 8260B
	ND	49.9	51.3	ug/kg	103	1.7	SW846 8260B
Chlorobenzene	ND	49.6	50.1	ug/kg	101		SW846 8260B
	ND	49.9	52.7	ug/kg	106	5.0	SW846 8260B
Ethylbenzene	ND	49.6	50.2	ug/kg	101		SW846 8260B
	ND	49.9	49.8	ug/kg	100	0.76	SW846 8260B
Vinyl chloride	ND	49.6	43.9	ug/kg	89		SW846 8260B
	ND	49.9	47.0	ug/kg	94	6.7	SW846 8260B
Styrene	ND	49.6	52.9	ug/kg	107		SW846 8260B
	ND	49.9	51.2	ug/kg	103	3.3	SW846 8260B
Bromoform	ND	49.6	45.6	ug/kg	92		SW846 8260B
	ND	49.9	50.2	ug/kg	101	9.5	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	49.6	50.1	ug/kg	101		SW846 8260B
	ND	49.9	53.2	ug/kg	107	5.9	SW846 8260B
n-Hexane	ND	49.6	40.6	ug/kg	82		SW846 8260B
	ND	49.9	44.4	ug/kg	89	8.9	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	104	(60 - 148)
	107	(60 - 148)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: W04649 **Work Order #...:** HD5941AD-MS **Matrix.....:** SOLID
MS Lot-Sample #: F5F220233-002 HD5941AE-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(61 - 140)
	102	(61 - 140)
1,2-Dichloroethane-d4	106	(56 - 149)
	103	(56 - 149)
4-Bromofluorobenzene	110	(56 - 150)
	102	(56 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

FLUOR HANFORD IC

Client Sample ID: B1D9Y4

GC/MS Semivolatiles

Lot-Sample #...: P5F220233-001 **Work Order #...:** HD57V1CA **Matrix.....:** SOLID
Date Sampled...: 06/08/05 **Date Received..:** 06/22/05
Prep Date.....: 06/23/05 **Analysis Date..:** 07/12/05
Prep Batch #...: 5174430
Dilution Factor: 1
% Moisture.....: **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Phenol	ND	610	ug/kg	24
Tributyl phosphate	ND	610	ug/kg	330
3-Methylphenol & 4-Methylphenol	ND	660	ug/kg	
Benzyl alcohol	ND	330	ug/kg	
bis(2-Chloroethoxy) methane	ND	330	ug/kg	
bis(2-Chloroethyl)-ether	ND	330	ug/kg	
4-Chloroaniline	ND	330	ug/kg	
4-Chloro-3-methylphenol	ND	330	ug/kg	
2-Chloronaphthalene	ND	330	ug/kg	
2-Chlorophenol	ND	330	ug/kg	
1,2-Dichlorobenzene	ND	330	ug/kg	
1,3-Dichlorobenzene	ND	330	ug/kg	
1,4-Dichlorobenzene	ND	330	ug/kg	
2,4-Dichlorophenol	ND	330	ug/kg	
2,4-Dimethylphenol	ND	330	ug/kg	
Hexachlorobutadiene	ND	330	ug/kg	
Hexachlorocyclopenta-diene	ND	1600	ug/kg	
Hexachloroethane	ND	330	ug/kg	
Isophorone	ND	330	ug/kg	
2-Methylnaphthalene	ND	330	ug/kg	
2-Methylphenol	ND	330	ug/kg	
Naphthalene	ND	330	ug/kg	
2-Nitroaniline	ND	1600	ug/kg	
Nitrobenzene	ND	330	ug/kg	
2-Nitrophenol	ND	330	ug/kg	
N-Nitrosodi-n-propyl-amine	ND	330	ug/kg	
Pyridine	ND	660	ug/kg	
1,2,4-Trichloro-benzene	ND	330	ug/kg	
2,2'-oxybis(1-Chloropropane)	ND	330	ug/kg	
Pyrene	ND	330	ug/kg	
Acenaphthene	ND	330	ug/kg	
Acenaphthylene	ND	330	ug/kg	

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FLUOR HANFORD IC

Client Sample ID: B1D9Y4

GC/MS Semivolatiles

Lot-Sample #...: F5F220233-001 **Work Order #...:** HD57V1CA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Anthracene	ND	330	ug/kg	
Benzo(a)anthracene	ND	330	ug/kg	
Benzo(b)fluoranthene	ND	330	ug/kg	
Benzo(k)fluoranthene	ND	330	ug/kg	
Benzo(ghi)perylene	ND	330	ug/kg	
Benzo(a)pyrene	ND	330	ug/kg	
bis(2-Ethylhexyl) phthalate	ND	330	ug/kg	
4-Bromophenyl phenyl ether	ND	330	ug/kg	
Butyl benzyl phthalate	ND	330	ug/kg	
4-Chlorophenyl phenyl ether	ND	330	ug/kg	
Chrysene	ND	330	ug/kg	
Dibenz(a,h)anthracene	ND	330	ug/kg	
Dibenzofuran	ND	330	ug/kg	
Di-n-butyl phthalate	ND	330	ug/kg	
3,3'-Dichlorobenzidine	ND	1600	ug/kg	
Diethyl phthalate	ND	330	ug/kg	
Dimethyl phthalate	ND	330	ug/kg	
Di-n-octyl phthalate	ND	330	ug/kg	
4,6-Dinitro-2-methylphenol	ND	1600	ug/kg	
2,4-Dinitrophenol	ND	1600	ug/kg	
2,4-Dinitrotoluene	ND	330	ug/kg	
2,6-Dinitrotoluene	ND	330	ug/kg	
Fluoranthene	ND	330	ug/kg	
Fluorene	ND	330	ug/kg	
Hexachlorobenzene	ND	330	ug/kg	
Indeno(1,2,3-cd)pyrene	ND	330	ug/kg	
2-Naphthylamine	ND	330	ug/kg	
3-Nitroaniline	ND	1600	ug/kg	
4-Nitroaniline	ND	1600	ug/kg	
4-Nitrophenol	ND	1600	ug/kg	
N-Nitrosodiphenylamine	ND	330	ug/kg	
Pentachlorophenol	ND	1600	ug/kg	
Phenanthrene	ND	330	ug/kg	
Carbazole	ND	330	ug/kg	
2,4,5-Trichloro-phenol	ND	330	ug/kg	30
2,4,6-Trichloro-phenol	ND	330	ug/kg	8.9

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FLUOR HANFORD IC

Client Sample ID: B1D9Y4

GC/MS Semivolatiles

Lot-Sample #...: F5F220233-001 **Work Order #...:** HD57V1CA **Matrix.....:** SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	85	(40 - 103)
Phenol-d5	80	(36 - 105)
Nitrobenzene-d5	90	(45 - 114)
2-Fluorobiphenyl	85	(49 - 120)
2,4,6-Tribromophenol	82	(39 - 114)
Terphenyl-d14	78	(42 - 108)

FLUOR HANFORD IC

B1D9Y4

GC/MS Semivolatiles

Lot-Sample #: F5F220233-001 **Work Order #:** HD57V1CA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		260	M	15.116	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

FLUOR HANFORD IC

Client Sample ID: B1D9Y5

GC/MS Semivolatiles

Lot-Sample #...: F5F220233-003 **Work Order #...:** HD6CT1CA **Matrix.....:** SOLID
Date Sampled...: 06/08/05 **Date Received..:** 06/22/05
Prep Date.....: 06/23/05 **Analysis Date..:** 07/12/05
Prep Batch #...: 5174430
Dilution Factor: 1
% Moisture.....: **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Phenol	ND	640	ug/kg	24
Tributyl phosphate	ND	640	ug/kg	330
3-Methylphenol & 4-Methylphenol	ND	660	ug/kg	
bis(2-Chloroethoxy) methane	ND	330	ug/kg	
bis(2-Chloroethyl)-ether	ND	330	ug/kg	
2-Chlorophenol	ND	330	ug/kg	
1,2-Dichlorobenzene	ND	330	ug/kg	
1,3-Dichlorobenzene	ND	330	ug/kg	
1,4-Dichlorobenzene	ND	330	ug/kg	
2,4-Dimethylphenol	ND	330	ug/kg	
Hexachloroethane	ND	330	ug/kg	
Isophorone	ND	330	ug/kg	
2-Methylphenol	ND	330	ug/kg	
Nitrobenzene	ND	330	ug/kg	
2-Nitrophenol	ND	330	ug/kg	
N-Nitrosodi-n-propyl-amine	ND	330	ug/kg	
Pyridine	ND	660	ug/kg	
2,2'-oxybis(1-Chloropropane)	ND	330	ug/kg	
Pyrene	ND	330	ug/kg	
Acenaphthene	ND	330	ug/kg	
Acenaphthylene	ND	330	ug/kg	
Anthracene	ND	330	ug/kg	
Benzo(a)anthracene	ND	330	ug/kg	
Benzo(b)fluoranthene	ND	330	ug/kg	
Benzo(k)fluoranthene	ND	330	ug/kg	
Benzo(ghi)perylene	ND	330	ug/kg	
Benzo(a)pyrene	ND	330	ug/kg	
bis(2-Ethylhexyl) phthalate	ND	330	ug/kg	
4-Bromophenyl phenyl ether	ND	330	ug/kg	
Butyl benzyl phthalate	ND	330	ug/kg	
4-Chloroaniline	ND	330	ug/kg	
4-Chloro-3-methylphenol	ND	330	ug/kg	

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FLUOR HANFORD IC

Client Sample ID: B1D9Y5

GC/MS Semivolatiles

Lot-Sample #...: F5F220233-003 **Work Order #...:** HD6CT1CA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2-Chloronaphthalene	ND	330	ug/kg	
4-Chlorophenyl phenyl ether	ND	330	ug/kg	
Chrysene	ND	330	ug/kg	
Dibenz(a,h)anthracene	ND	330	ug/kg	
Dibenzofuran	ND	330	ug/kg	
Di-n-butyl phthalate	ND	330	ug/kg	
3,3'-Dichlorobenzidine	ND	1600	ug/kg	
2,4-Dichlorophenol	ND	330	ug/kg	
2,6-Dichlorophenol	ND	330	ug/kg	
Diethyl phthalate	ND	330	ug/kg	
Dimethyl phthalate	ND	330	ug/kg	
Di-n-octyl phthalate	ND	330	ug/kg	
4,6-Dinitro-2-methylphenol	ND	1600	ug/kg	
2,4-Dinitrophenol	ND	1600	ug/kg	
2,4-Dinitrotoluene	ND	330	ug/kg	
2,6-Dinitrotoluene	ND	330	ug/kg	
Fluoranthene	ND	330	ug/kg	
Fluorene	ND	330	ug/kg	
Hexachlorobenzene	ND	330	ug/kg	
Hexachlorobutadiene	ND	330	ug/kg	
Hexachlorocyclopentadiene	ND	1600	ug/kg	
Indeno(1,2,3-cd)pyrene	ND	330	ug/kg	
2-Methylnaphthalene	ND	330	ug/kg	
Naphthalene	ND	330	ug/kg	
2-Naphthylamine	ND	330	ug/kg	
2-Nitroaniline	ND	1600	ug/kg	
3-Nitroaniline	ND	1600	ug/kg	
4-Nitroaniline	ND	1600	ug/kg	
N-Nitrosodiphenylamine	ND	330	ug/kg	
Pentachlorophenol	ND	1600	ug/kg	
Phenanthrene	ND	330	ug/kg	
1,2,4-Trichlorobenzene	ND	330	ug/kg	
Carbazole	ND	330	ug/kg	
2,4,5-Trichlorophenol	ND	330	ug/kg	30
2,4,6-Trichlorophenol	ND	330	ug/kg	8.9
4-Nitrophenol	ND	1600	ug/kg	35

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FLUOR HANFORD IC

Client Sample ID: B1D9Y5

GC/MS Semivolatiles

Lot-Sample #...: F5F220233-003 **Work Order #...:** HD6CT1CA **Matrix.....:** SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	84	(40 - 103)
Phenol-d5	79	(36 - 105)
Nitrobenzene-d5	89	(45 - 114)
2-Fluorobiphenyl	86	(49 - 120)
2,4,6-Tribromophenol	78	(39 - 114)
Terphenyl-d14	77	(42 - 108)

FLUOR HANFORD IC

B1D9Y5

GC/MS Semivolatiles

Lot-Sample #: F5F220233-003 **Work Order #:** HD6CT1CA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: W04649 **Work Order #...:** HD89R1AA **Matrix.....:** SOLID
MB Lot-Sample #: F5F230000-430

Prep Date.....: 06/23/05
Analysis Date..: 07/12/05 **Prep Batch #...:** 5174430
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Phenol	ND	610	ug/kg	SW846 8270C
Tributyl phosphate	ND	610	ug/kg	SW846 8270C
3-Methylphenol & 4-Methylphenol	ND	660	ug/kg	SW846 8270C
Pyrene	ND	330	ug/kg	SW846 8270C
Acenaphthene	ND	330	ug/kg	SW846 8270C
Acenaphthylene	ND	330	ug/kg	SW846 8270C
Anthracene	ND	330	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	330	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	330	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	330	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	330	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	330	ug/kg	SW846 8270C
Benzyl alcohol	ND	330	ug/kg	SW846 8270C
bis(2-Chloroethoxy) methane	ND	330	ug/kg	SW846 8270C
bis(2-Chloroethyl)-ether	ND	330	ug/kg	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	330	ug/kg	SW846 8270C
4-Bromophenyl phenyl ether	ND	330	ug/kg	SW846 8270C
Butyl benzyl phthalate	ND	330	ug/kg	SW846 8270C
4-Chloroaniline	ND	330	ug/kg	SW846 8270C
4-Chloro-3-methylphenol	ND	330	ug/kg	SW846 8270C
2-Chloronaphthalene	ND	330	ug/kg	SW846 8270C
2-Chlorophenol	ND	330	ug/kg	SW846 8270C
4-Chlorophenyl phenyl ether	ND	330	ug/kg	SW846 8270C
Chrysene	ND	330	ug/kg	SW846 8270C
Dibenz(a,h)anthracene	ND	330	ug/kg	SW846 8270C
Dibenzofuran	ND	330	ug/kg	SW846 8270C
Di-n-butyl phthalate	ND	330	ug/kg	SW846 8270C
1,2-Dichlorobenzene	ND	330	ug/kg	SW846 8270C
1,3-Dichlorobenzene	ND	330	ug/kg	SW846 8270C
1,4-Dichlorobenzene	ND	330	ug/kg	SW846 8270C
3,3'-Dichlorobenzidine	ND	1600	ug/kg	SW846 8270C
2,4-Dichlorophenol	ND	330	ug/kg	SW846 8270C
Diethyl phthalate	ND	330	ug/kg	SW846 8270C
2,4-Dimethylphenol	ND	330	ug/kg	SW846 8270C
Dimethyl phthalate	ND	330	ug/kg	SW846 8270C

(Continued on next page)

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: W04649 **Work Order #...:** HD89R1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Di-n-octyl phthalate	ND	330	ug/kg	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	1600	ug/kg	SW846 8270C
2,4-Dinitrophenol	ND	1600	ug/kg	SW846 8270C
2,4-Dinitrotoluene	ND	330	ug/kg	SW846 8270C
2,6-Dinitrotoluene	ND	330	ug/kg	SW846 8270C
Fluoranthene	ND	330	ug/kg	SW846 8270C
Fluorene	ND	330	ug/kg	SW846 8270C
Hexachlorobenzene	ND	330	ug/kg	SW846 8270C
Hexachlorobutadiene	ND	330	ug/kg	SW846 8270C
Hexachlorocyclopentadiene	ND	1600	ug/kg	SW846 8270C
Hexachloroethane	ND	330	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	330	ug/kg	SW846 8270C
Isophorone	ND	330	ug/kg	SW846 8270C
2-Methylnaphthalene	ND	330	ug/kg	SW846 8270C
2-Methylphenol	ND	330	ug/kg	SW846 8270C
Naphthalene	ND	330	ug/kg	SW846 8270C
2-Naphthylamine	ND	330	ug/kg	SW846 8270C
2-Nitroaniline	ND	1600	ug/kg	SW846 8270C
3-Nitroaniline	ND	1600	ug/kg	SW846 8270C
4-Nitroaniline	ND	1600	ug/kg	SW846 8270C
Nitrobenzene	ND	330	ug/kg	SW846 8270C
2-Nitrophenol	ND	330	ug/kg	SW846 8270C
4-Nitrophenol	ND	1600	ug/kg	SW846 8270C
N-Nitrosodi-n-propylamine	ND	330	ug/kg	SW846 8270C
N-Nitrosodiphenylamine	ND	330	ug/kg	SW846 8270C
Pentachlorophenol	ND	1600	ug/kg	SW846 8270C
Phenanthrene	ND	330	ug/kg	SW846 8270C
Pyridine	ND	660	ug/kg	SW846 8270C
1,2,4-Trichlorobenzene	ND	330	ug/kg	SW846 8270C
2,4,5-Trichlorophenol	ND	330	ug/kg	SW846 8270C
2,4,6-Trichlorophenol	ND	330	ug/kg	SW846 8270C
Carbazole	ND	330	ug/kg	SW846 8270C
2,2'-oxybis(1-Chloropropa	ND	330	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	86	(40 - 103)
Phenol-d5	84	(36 - 105)
Nitrobenzene-d5	83	(45 - 114)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: W04649 **Work Order #...:** HD89R1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2-Fluorobiphenyl	83	(49 - 120)		
2,4,6-Tribromophenol	65	(39 - 114)		
Terphenyl-d14	81	(42 - 108)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

FLUOR HANFORD IC

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: F5F230000-430 B **Work Order #:** HD89R1AA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown aldol condensate		8900	M	3.5081	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: W04649 Work Order #...: HD89R1AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: F5F230000-430 HD89R1AD-LCSD
Prep Date.....: 06/23/05 Analysis Date..: 07/12/05
Prep Batch #...: 5174430
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Phenol	3330	2260	ug/kg	68		SW846 8270C
	3330	2220	ug/kg	67	1.6	SW846 8270C
bis(2-Chloroethyl)-ether	3330	2570	ug/kg	77		SW846 8270C
	3330	2480	ug/kg	74	3.3	SW846 8270C
2-Chlorophenol	3330	2320	ug/kg	70		SW846 8270C
	3330	2260	ug/kg	68	2.6	SW846 8270C
2-Methylphenol	3330	2130	ug/kg	64		SW846 8270C
	3330	2090	ug/kg	63	2.1	SW846 8270C
2,2'-oxybis(1-Chloropropan	3330	2470	ug/kg	74		SW846 8270C
	3330	2400	ug/kg	72	3.1	SW846 8270C
3-Methylphenol & 4-Methylphenol	3330	2220	ug/kg	67		SW846 8270C
	3330	2140	ug/kg	64	3.6	SW846 8270C
N-Nitrosodi-n-propyl-amine	3330	2480	ug/kg	74		SW846 8270C
	3330	2440	ug/kg	73	1.9	SW846 8270C
Hexachloroethane	3330	2580	ug/kg	78		SW846 8270C
	3330	2540	ug/kg	76	1.9	SW846 8270C
Nitrobenzene	3330	2580	ug/kg	77		SW846 8270C
	3330	2520	ug/kg	75	2.5	SW846 8270C
Isophorone	3330	2740	ug/kg	82		SW846 8270C
	3330	2690	ug/kg	81	2.0	SW846 8270C
2-Nitrophenol	3330	2420	ug/kg	73		SW846 8270C
	3330	2400	ug/kg	72	1.2	SW846 8270C
2,4-Dimethylphenol	3330	2160	ug/kg	65		SW846 8270C
	3330	2100	ug/kg	63	2.6	SW846 8270C
bis(2-Chloroethoxy) methane	3330	2360	ug/kg	71		SW846 8270C
	3330	2310	ug/kg	69	2.4	SW846 8270C
2,4-Dichlorophenol	3330	2280	ug/kg	68		SW846 8270C
	3330	2210	ug/kg	66	2.9	SW846 8270C
1,2,4-Trichloro-benzene	3330	2530	ug/kg	76		SW846 8270C
	3330	2480	ug/kg	74	2.2	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: W04649 Work Order #...: HD89R1AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: F5F230000-430 HD89R1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Naphthalene	3330	2500	ug/kg	75		SW846 8270C
	3330	2440	ug/kg	73	2.1	SW846 8270C
4-Chloroaniline	3330	1360	ug/kg	41		SW846 8270C
	3330	1370	ug/kg	41	0.95	SW846 8270C
Hexachlorobutadiene	3330	2580	ug/kg	77		SW846 8270C
	3330	2530	ug/kg	76	1.7	SW846 8270C
4-Chloro-3-methylphenol	3330	2190	ug/kg	66		SW846 8270C
	3330	2100	ug/kg	63	4.1	SW846 8270C
2-Methylnaphthalene	3330	2320	ug/kg	70		SW846 8270C
	3330	2300	ug/kg	69	0.82	SW846 8270C
Hexachlorocyclopenta-diene	3330	3240	ug/kg	97		SW846 8270C
	3330	3040	ug/kg	91	6.4	SW846 8270C
2,4,6-Trichloro-phenol	3330	2470	ug/kg	74		SW846 8270C
	3330	2340	ug/kg	70	5.4	SW846 8270C
2,4,5-Trichloro-phenol	3330	2300	ug/kg	69		SW846 8270C
	3330	2180	ug/kg	65	5.7	SW846 8270C
2-Nitroaniline	3330	2360	ug/kg	71		SW846 8270C
	3330	2260	ug/kg	68	4.7	SW846 8270C
Dimethyl phthalate	3330	2420	ug/kg	73		SW846 8270C
	3330	2300	ug/kg	69	5.0	SW846 8270C
Acenaphthylene	3330	2630	ug/kg	79		SW846 8270C
	3330	2540	ug/kg	76	3.6	SW846 8270C
2,6-Dinitrotoluene	3330	2420	ug/kg	73		SW846 8270C
	3330	2320	ug/kg	70	4.1	SW846 8270C
3-Nitroaniline	3330	1720	ug/kg	52		SW846 8270C
	3330	1660	ug/kg	50	3.7	SW846 8270C
Acenaphthene	3330	2480	ug/kg	74		SW846 8270C
	3330	2390	ug/kg	72	3.6	SW846 8270C
2,4-Dinitrophenol	3330	1760	ug/kg	53		SW846 8270C
	3330	1240 p	ug/kg	37	34	SW846 8270C
4-Nitrophenol	3330	2330	ug/kg	70		SW846 8270C
	3330	2220	ug/kg	67	5.1	SW846 8270C
Dibenzofuran	3330	2420	ug/kg	73		SW846 8270C
	3330	2330	ug/kg	70	3.7	SW846 8270C
2,4-Dinitrotoluene	3330	2470	ug/kg	74		SW846 8270C
	3330	2400	ug/kg	72	2.9	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: W04649 Work Order #...: HD89R1AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: F5F230000-430 HD89R1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Diethyl phthalate	3330	2410	ug/kg	72		SW846 8270C
	3330	2300	ug/kg	69	4.7	SW846 8270C
4-Chlorophenyl phenyl ether	3330	2400	ug/kg	72		SW846 8270C
	3330	2320	ug/kg	70	3.3	SW846 8270C
Fluorene	3330	2430	ug/kg	73		SW846 8270C
	3330	2330	ug/kg	70	4.2	SW846 8270C
4-Nitroaniline	3330	2090	ug/kg	63		SW846 8270C
	3330	2010	ug/kg	60	3.5	SW846 8270C
4,6-Dinitro-2-methylphenol	3330	2400	ug/kg	72		SW846 8270C
	3330	2030	ug/kg	61	17	SW846 8270C
N-Nitrosodiphenylamine	3330	2860	ug/kg	86		SW846 8270C
	3330	2780	ug/kg	83	3.0	SW846 8270C
4-Bromophenyl phenyl ether	3330	2570	ug/kg	77		SW846 8270C
	3330	2480	ug/kg	75	3.4	SW846 8270C
Hexachlorobenzene	3330	2710	ug/kg	81		SW846 8270C
	3330	2570	ug/kg	77	5.1	SW846 8270C
Pentachlorophenol	3330	2280	ug/kg	68		SW846 8270C
	3330	2290	ug/kg	69	0.65	SW846 8270C
Phenanthrene	3330	2530	ug/kg	76		SW846 8270C
	3330	2430	ug/kg	73	4.0	SW846 8270C
Anthracene	3330	2530	ug/kg	76		SW846 8270C
	3330	2470	ug/kg	74	2.4	SW846 8270C
Carbazole	3330	2530	ug/kg	76		SW846 8270C
	3330	2430	ug/kg	73	3.9	SW846 8270C
Di-n-butyl phthalate	3330	2560	ug/kg	77		SW846 8270C
	3330	2500	ug/kg	75	2.6	SW846 8270C
Fluoranthene	3330	2450	ug/kg	74		SW846 8270C
	3330	2360	ug/kg	71	3.5	SW846 8270C
Pyrene	3330	2450	ug/kg	74		SW846 8270C
	3330	2330	ug/kg	70	5.4	SW846 8270C
Butyl benzyl phthalate	3330	2460	ug/kg	74		SW846 8270C
	3330	2350	ug/kg	70	4.9	SW846 8270C
3,3'-Dichlorobenzidine	3330	1940	ug/kg	58		SW846 8270C
	3330	1870	ug/kg	56	3.5	SW846 8270C
Benzo(a)anthracene	3330	2560	ug/kg	77		SW846 8270C
	3330	2440	ug/kg	73	4.7	SW846 8270C

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: W04649 **Work Order #...:** HD89R1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: F5F230000-430 HD89R1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Chrysene	**3330**	**2580**	**ug/kg**	**77**		**SW846 8270C**
	3330	**2430**	**ug/kg**	**73**	**5.8**	**SW846 8270C**
bis(2-Ethylhexyl) phthalate	**3330**	**2660**	**ug/kg**	**80**		**SW846 8270C**
	3330	**2440**	**ug/kg**	**73**	**8.9**	**SW846 8270C**
Di-n-octyl phthalate	**3330**	**2420**	**ug/kg**	**73**		**SW846 8270C**
	3330	**2310**	**ug/kg**	**69**	**4.6**	**SW846 8270C**
Benzo(b)fluoranthene	**3330**	**2480**	**ug/kg**	**74**		**SW846 8270C**
	3330	**2360**	**ug/kg**	**71**	**5.0**	**SW846 8270C**
Benzo(k)fluoranthene	**3330**	**2710**	**ug/kg**	**81**		**SW846 8270C**
	3330	**2590**	**ug/kg**	**78**	**4.7**	**SW846 8270C**
Benzo(a)pyrene	**3330**	**2650**	**ug/kg**	**80**		**SW846 8270C**
	3330	**2500**	**ug/kg**	**75**	**5.9**	**SW846 8270C**
Indeno(1,2,3-cd)pyrene	**3330**	**2480**	**ug/kg**	**74**		**SW846 8270C**
	3330	**2320**	**ug/kg**	**70**	**6.5**	**SW846 8270C**
Dibenz(a,h)anthracene	**3330**	**2510**	**ug/kg**	**75**		**SW846 8270C**
	3330	**2350**	**ug/kg**	**71**	**6.7**	**SW846 8270C**
Benzo(ghi)perylene	**3330**	**2580**	**ug/kg**	**77**		**SW846 8270C**
	3330	**2420**	**ug/kg**	**73**	**6.1**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	87	(50 - 98)
	85	(50 - 98)
Phenol-d5	81	(51 - 95)
	79	(51 - 95)
Nitrobenzene-d5	88	(50 - 111)
	88	(50 - 111)
2-Fluorobiphenyl	91	(57 - 117)
	89	(57 - 117)
2,4,6-Tribromophenol	85	(53 - 108)
	79	(53 - 108)
Terphenyl-d14	81	(49 - 107)
	76	(49 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

FLUOR HANFORD IC

Client Sample ID: B1D9Y4

GC Semivolatiles

Lot-Sample #...: F5F220233-001 **Work Order #...:** HD57V1A6 **Matrix.....:** SOLID
Date Sampled...: 06/08/05 **Date Received..:** 06/22/05
Prep Date.....: 06/23/05 **Analysis Date..:** 07/04/05
Prep Batch #...: 5174366
Dilution Factor: 1
% Moisture.....: **Method.....:** SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Kerosene	ND	52	mg/kg	0.50
TPH - Diesel Range - WTPH-D	ND	52	mg/kg	0.94

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	34	(10 - 150)

FLUOR HANFORD IC

Client Sample ID: B1D9Y5

GC Semivolatiles

Lot-Sample #...: F5F220233-003 **Work Order #...:** HD6CT1AH **Matrix.....:** SOLID
Date Sampled...: 06/08/05 **Date Received..:** 06/22/05
Prep Date.....: 06/23/05 **Analysis Date..:** 07/04/05
Prep Batch #...: 5174366
Dilution Factor: 1
% Moisture.....: **Method.....:** SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Kerosene	ND	46	mg/kg	0.50
TPH - Diesel Range - WTPH-D	ND	46	mg/kg	0.94

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	31	(10 - 150)

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: W04649 **Work Order #...:** HD8XQ1AA **Matrix.....:** SOLID
MB Lot-Sample #: F5F230000-366

Prep Date.....: 06/23/05
Analysis Date..: 07/04/05 **Prep Batch #...:** 5174366
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
TPH - Diesel Range - WTPH	ND	46	mg/kg	SW846 8015 MOD
Kerosene	ND	46	mg/kg	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	59 *	(78 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Surrogate recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: W04649 **Work Order #...:** HD8XQ1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F5F230000-366
Prep Date.....: 06/23/05 **Analysis Date..:** 06/30/05
Prep Batch #...: 5174366
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
TPH - Diesel Range - WTPH	**83.3**	**50.5**	**mg/kg**	**61**	**SW846 8015 MO**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	102	(78 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: W04649 **Work Order #...:** HD5TG1AE-MS **Matrix.....:** SOLID
MS Lot-Sample #: F5F220220-002 HD5TG1AF-MSD
Date Sampled...: 06/20/05 **Date Received..:** 06/22/05
Prep Date.....: 06/23/05 **Analysis Date..:** 06/30/05
Prep Batch #...: 5174366
Dilution Factor: 5 **% Moisture.....:** 8.4

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
TPH - Diesel Range - WTPH	**ND**	**88.5**	**85.6**	**mg/kg**	**97 D**		**SW846 8015 MOD**
	ND	**89.1**	**74.5**	**mg/kg**	**84 D**	**14**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	62 DIL	(10 - 150)
	61 DIL	(10 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

FLUOR HANFORD IC

Client Sample ID: B1D9Y4

GC Semivolatiles

Lot-Sample #...: F5F220233-001 **Work Order #...:** HD57V1A4 **Matrix.....:** SOLID
Date Sampled...: 06/08/05 **Date Received..:** 06/22/05
Prep Date.....: 07/02/05 **Analysis Date..:** 07/05/05
Prep Batch #...: 5186130
Dilution Factor: 1
% Moisture.....: **Method.....:** SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	64	ug/kg	4.7
Aroclor 1221	ND	64	ug/kg	4.7
Aroclor 1232	ND	64	ug/kg	4.7
Aroclor 1242	ND	64	ug/kg	4.7
Aroclor 1248	ND	64	ug/kg	4.7
Aroclor 1254	ND	64	ug/kg	4.8
Aroclor 1260	ND	64	ug/kg	4.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	148	(30 - 150)

FLUOR HANFORD IC

Client Sample ID: B1D9Y5

GC Semivolatiles

Lot-Sample #...: F5F220233-003 **Work Order #...:** HD6CT1AF **Matrix.....:** SOLID
Date Sampled...: 06/08/05 **Date Received..:** 06/22/05
Prep Date.....: 07/02/05 **Analysis Date..:** 07/05/05
Prep Batch #...: 5186130
Dilution Factor: 1
% Moisture.....: **Method.....:** SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	33	ug/kg	4.7
Aroclor 1221	ND	33	ug/kg	4.7
Aroclor 1232	ND	33	ug/kg	4.7
Aroclor 1242	ND	33	ug/kg	4.7
Aroclor 1248	ND	33	ug/kg	4.7
Aroclor 1254	ND	33	ug/kg	4.8
Aroclor 1260	ND	33	ug/kg	4.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	127	(30 - 150)

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: W04649 **Work Order #...:** HEV0E1AA **Matrix.....:** SOLID
MB Lot-Sample #: F5G050000-130

Prep Date.....: 07/02/05
Analysis Date..: 07/05/05 **Prep Batch #...:** 5186130
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	33	ug/kg	SW846 8082
Aroclor 1221	ND	33	ug/kg	SW846 8082
Aroclor 1232	ND	33	ug/kg	SW846 8082
Aroclor 1242	ND	33	ug/kg	SW846 8082
Aroclor 1248	ND	33	ug/kg	SW846 8082
Aroclor 1254	ND	33	ug/kg	SW846 8082
Aroclor 1260	ND	33	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	118	(30 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: W04649 **Work Order #...:** HEV0E1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F5G050000-130
Prep Date.....: 07/02/05 **Analysis Date..:** 07/05/05
Prep Batch #...: 5186130
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Aroclor 1016	**167**	**214**	**ug/kg**	**128**	**SW846 8082**
Aroclor 1260	**167**	**195**	**ug/kg**	**117**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	122	(73 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: W04649 **Work Order #...:** HEPPH1AF-MS **Matrix.....:** SOLID
MS Lot-Sample #: F5F300320-001 HEPPH1AG-MSD
Date Sampled...: 06/28/05 **Date Received..:** 06/30/05
Prep Date.....: 07/02/05 **Analysis Date..:** 07/05/05
Prep Batch #...: 5186130
Dilution Factor: 1 **% Moisture.....:** 1.4

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Aroclor 1016	**ND**	**845**	**1260**	**ug/kg**	**150**		**SW846 8082**
	ND	**820**	**1410**	**ug/kg**	**171 a**	**11**	**SW846 8082**
Aroclor 1260	**610**	**845**	**2060**	**ug/kg**	**172 a**		**SW846 8082**
	610	**820**	**1900**	**ug/kg**	**158 a**	**8.0**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	132	(30 - 150)
	144	(30 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

FLUOR HANFORD IC

Client Sample ID: B1D9Y4

TOTAL Metals

Lot-Sample #...: F5F220233-001
Date Sampled...: 06/08/05 Date Received..: 06/22/05 Matrix.....: SOLID
% Moisture.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5180109						
Phosphorus	1430 ~~J~~C	50.0	mg/kg	SW846 6010B	06/29-07/05/05	HD57V1AD
		Dilution Factor: 1		MDL.....: 1.9		
Antimony	1.9	1.0	mg/kg	SW846 6010B	06/29/05	HD57V1AE
		Dilution Factor: 1		MDL.....: 0.33		
Arsenic	0.67 B	1.0	mg/kg	SW846 6010B	06/29/05	HD57V1AF
		Dilution Factor: 1		MDL.....: 0.13		
Barium	65.1	20.0	mg/kg	SW846 6010B	06/29/05	HD57V1AG
		Dilution Factor: 1		MDL.....: 0.080		
Cadmium	ND	0.50	mg/kg	SW846 6010B	06/29/05	HD57V1AH
		Dilution Factor: 1		MDL.....: 0.13		
Chromium	4.1	1.0	mg/kg	SW846 6010B	06/29/05	HD57V1AJ
		Dilution Factor: 1		MDL.....: 0.18		
Copper	13.1	2.5	mg/kg	SW846 6010B	06/29/05	HD57V1AK
		Dilution Factor: 1		MDL.....: 0.23		
Lead	1.9 ~~J~~C	0.50	mg/kg	SW846 6010B	06/29/05	HD57V1AL
		Dilution Factor: 1		MDL.....: 0.051		
Nickel	6.1	4.0	mg/kg	SW846 6010B	06/29/05	HD57V1AM
		Dilution Factor: 1		MDL.....: 0.098		
Selenium	1.8 ~~J~~C	0.50	mg/kg	SW846 6010B	06/29/05	HD57V1AN
		Dilution Factor: 1		MDL.....: 0.16		
Silver	ND	1.0	mg/kg	SW846 6010B	06/29/05	HD57V1AP
		Dilution Factor: 1		MDL.....: 0.26		
Thallium	2.5	2.0	mg/kg	SW846 6010B	06/29/05	HD57V1AQ
		Dilution Factor: 1		MDL.....: 0.54		
Bismuth	102	20.0	mg/kg	SW846 6010B	06/29-07/05/05	HD57V1AR
		Dilution Factor: 1		MDL.....: 3.2		
Prep Batch #...: 5192470						
Mercury	0.30	0.033	mg/kg	SW846 7471A	07/12-07/14/05	HD57V1AC
		Dilution Factor: 1		MDL.....: 0.0072		

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FLUOR HANFORD IC

Client Sample ID: B1D9Y4

TOTAL Metals

Lot-Sample #...: F5F220233-001 Matrix.....: SOLID

NOTE(S):

C Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

TM 8/10/05

FLUOR HANFORD IC

Client Sample ID: B1D9Y5

TOTAL Metals

Lot-Sample #...: F5F220233-003
Date Sampled...: 06/08/05 Date Received..: 06/22/05
% Moisture.....:
Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5180109						
Phosphorus	1130 J C	50.0	mg/kg	SW846 6010B	06/29-07/05/05	HD6CT1AP
		Dilution Factor: 1		MDL.....: 1.9		
Antimony	1.7	1.0	mg/kg	SW846 6010B	06/29/05	HD6CT1AQ
		Dilution Factor: 1		MDL.....: 0.33		
Arsenic	2.0	1.0	mg/kg	SW846 6010B	06/29/05	HD6CT1AR
		Dilution Factor: 1		MDL.....: 0.13		
Barium	85.1	20.0	mg/kg	SW846 6010B	06/29/05	HD6CT1AT
		Dilution Factor: 1		MDL.....: 0.080		
Cadmium	ND	0.50	mg/kg	SW846 6010B	06/29/05	HD6CT1AU
		Dilution Factor: 1		MDL.....: 0.13		
Chromium	3.3	1.0	mg/kg	SW846 6010B	06/29/05	HD6CT1AV
		Dilution Factor: 1		MDL.....: 0.18		
Copper	13.2	2.5	mg/kg	SW846 6010B	06/29/05	HD6CT1AW
		Dilution Factor: 1		MDL.....: 0.23		
Lead	1.5 J C	0.50	mg/kg	SW846 6010B	06/29/05	HD6CT1AX
		Dilution Factor: 1		MDL.....: 0.051		
Nickel	4.9	4.0	mg/kg	SW846 6010B	06/29/05	HD6CT1A0
		Dilution Factor: 1		MDL.....: 0.098		
Selenium	1.4 J C	0.50	mg/kg	SW846 6010B	06/29/05	HD6CT1A1
		Dilution Factor: 1		MDL.....: 0.16		
Silver	ND 3 C MM 8/10/05	1.0	mg/kg	SW846 6010B	06/29/05	HD6CT1A2
		Dilution Factor: 1		MDL.....: 0.26		
Thallium	2.1	2.0	mg/kg	SW846 6010B	06/29/05	HD6CT1A3
		Dilution Factor: 1		MDL.....: 0.54		
Bismuth	94.3	20.0	mg/kg	SW846 6010B	06/29-07/05/05	HD6CT1A4
		Dilution Factor: 1		MDL.....: 3.2		
Prep Batch #...: 5192470						
Mercury	ND	0.033	mg/kg	SW846 7471A	07/12-07/14/05	HD6CT1AN
		Dilution Factor: 1		MDL.....: 0.0072		

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FLUOR HANFORD IC

Client Sample ID: B1D9Y5

TOTAL Metals

Lot-Sample #...: F5F220233-003 Matrix.....: SOLID

NOTE(S):

C✓ Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MB 8/10/05

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: W04649 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F5F290000-109 **Prep Batch #...:** 5180109						
Phosphorus	**4.7 B**	**50.0**	**mg/kg**	**SW846 6010B**	**06/29-07/05/05**	**HEKED1AA**
		Dilution Factor: 1				
Antimony	ND	1.0	mg/kg	SW846 6010B	06/29/05	HEKED1AC
		Dilution Factor: 1				
Arsenic	ND	1.0	mg/kg	SW846 6010B	06/29/05	HEKED1AD
		Dilution Factor: 1				
Barium	ND	20.0	mg/kg	SW846 6010B	06/29/05	HEKED1AE
		Dilution Factor: 1				
Cadmium	ND	0.50	mg/kg	SW846 6010B	06/29/05	HEKED1AF
		Dilution Factor: 1				
Chromium	ND	1.0	mg/kg	SW846 6010B	06/29/05	HEKED1AG
		Dilution Factor: 1				
Copper	ND	2.5	mg/kg	SW846 6010B	06/29/05	HEKED1AH
		Dilution Factor: 1				
Lead	**0.078 B**	**0.50**	**mg/kg**	**SW846 6010B**	**06/29/05**	**HEKED1AJ**
		Dilution Factor: 1				
Nickel	ND	4.0	mg/kg	SW846 6010B	06/29/05	HEKED1AK
		Dilution Factor: 1				
Selenium	**0.19 B**	**0.50**	**mg/kg**	**SW846 6010B**	**06/29/05**	**HEKED1AL**
		Dilution Factor: 1				
Silver	ND	1.0	mg/kg	SW846 6010B	06/29/05	HEKED1AM
		Dilution Factor: 1				
Thallium	ND	2.0	mg/kg	SW846 6010B	06/29/05	HEKED1AN
		Dilution Factor: 1				
Bismuth	ND	20.0	mg/kg	SW846 6010B	06/29-07/05/05	HEKED1AP
		Dilution Factor: 1				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: W04649 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F5G110000-470 **Prep Batch #...:** 5192470						
Mercury	ND	0.0333	mg/kg	SW846 7471A	07/12-07/14/05	HE8KM1AA
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04649 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F5F290000-109 **Prep Batch #...:** 5180109							
Phosphorus	1000	989	mg/kg	99	SW846 6010B	06/29-07/05/05	HEKED1AQ
			Dilution Factor: 1				
Antimony	60.9	49.7	mg/kg	82	SW846 6010B	06/29/05	HEKED1AR
			Dilution Factor: 1				
Arsenic	161	170	mg/kg	106	SW846 6010B	06/29/05	HEKED1AT
			Dilution Factor: 1				
Barium	252	282	mg/kg	112	SW846 6010B	06/29/05	HEKED1AU
			Dilution Factor: 1				
Cadmium	128	135	mg/kg	105	SW846 6010B	06/29/05	HEKED1AV
			Dilution Factor: 1				
Chromium	69.5	70.6	mg/kg	102	SW846 6010B	06/29/05	HEKED1AW
			Dilution Factor: 1				
Copper	148	152	mg/kg	103	SW846 6010B	06/29/05	HEKED1AX
			Dilution Factor: 1				
Lead	142	146	mg/kg	103	SW846 6010B	06/29/05	HEKED1A0
			Dilution Factor: 1				
Nickel	147	152	mg/kg	103	SW846 6010B	06/29/05	HEKED1A1
			Dilution Factor: 1				
Selenium	64.2	67.1	mg/kg	104	SW846 6010B	06/29/05	HEKED1A2
			Dilution Factor: 1				
Silver	130	143	mg/kg	110	SW846 6010B	06/29/05	HEKED1A3
			Dilution Factor: 1				
Thallium	84.0	90.1	mg/kg	107	SW846 6010B	06/29/05	HEKED1A4
			Dilution Factor: 1				
Bismuth	200	205	mg/kg	103	SW846 6010B	06/29-07/05/05	HEKED1A5
			Dilution Factor: 1				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04649 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F5G110000-470 **Prep Batch #...:** 5192470							
Mercury	16.9	15.1	mg/kg	89	SW846 7471A	07/12-07/14/05	HE8KM1AC
Dilution Factor: 20							

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04649 **Matrix.....:** SOLID
Date Sampled...: 06/08/05 **Date Received..:** 06/22/05

MS Lot-Sample #: F5F220233-003 **Prep Batch #...:** 5180109
% Moisture.....:

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Phosphorus									
	1130	1000	2010	mg/kg	88		SW846 6010B	06/29-07/05/05	HD6CT1CC
	1130	1000	1970	mg/kg	84	2.1	SW846 6010B	06/29-07/05/05	HD6CT1CD
			Dilution Factor: 1						
Antimony									
	1.7	50.0	30.6 N	mg/kg	58		SW846 6010B	06/29/05	HD6CT1CE
	1.7	50.0	30.4 N	mg/kg	57	0.76	SW846 6010B	06/29/05	HD6CT1CF
			Dilution Factor: 1						
Arsenic									
	2.0	200	199	mg/kg	98		SW846 6010B	06/29/05	HD6CT1CG
	2.0	200	198	mg/kg	98	0.45	SW846 6010B	06/29/05	HD6CT1CH
			Dilution Factor: 1						
Barium									
	85.1	200	297	mg/kg	106		SW846 6010B	06/29/05	HD6CT1CJ
	85.1	200	295	mg/kg	105	0.88	SW846 6010B	06/29/05	HD6CT1CK
			Dilution Factor: 1						
Cadmium									
	ND	5.00	4.16	mg/kg	83		SW846 6010B	06/29/05	HD6CT1CL
	ND	5.00	4.12	mg/kg	82	1.1	SW846 6010B	06/29/05	HD6CT1CM
			Dilution Factor: 1						
Chromium									
	3.3	20.0	23.4	mg/kg	100		SW846 6010B	06/29/05	HD6CT1CN
	3.3	20.0	22.7	mg/kg	97	3.1	SW846 6010B	06/29/05	HD6CT1CP
			Dilution Factor: 1						
Copper									
	13.2	25.0	39.0	mg/kg	103		SW846 6010B	06/29/05	HD6CT1CQ
	13.2	25.0	38.1	mg/kg	99	2.2	SW846 6010B	06/29/05	HD6CT1CR
			Dilution Factor: 1						
Lead									
	1.5	50.0	48.4	mg/kg	94		SW846 6010B	06/29/05	HD6CT1CT
	1.5	50.0	48.1	mg/kg	93	0.60	SW846 6010B	06/29/05	HD6CT1CU
			Dilution Factor: 1						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04649 **Matrix.....:** SOLID
Date Sampled...: 06/08/05 **Date Received..:** 06/22/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel									
	4.9	50.0	53.4	mg/kg	97		SW846 6010B	06/29/05	HD6CT1CV
	4.9	50.0	52.1	mg/kg	94	2.3	SW846 6010B	06/29/05	HD6CT1CW
			Dilution Factor: 1						
Selenium									
	1.4	200	192	mg/kg	96		SW846 6010B	06/29/05	HD6CT1CX
	1.4	200	191	mg/kg	95	0.55	SW846 6010B	06/29/05	HD6CT1C0
			Dilution Factor: 1						
Silver									
	ND	5.00	4.91	mg/kg	98		SW846 6010B	06/29/05	HD6CT1C1
	ND	5.00	4.90	mg/kg	98	0.32	SW846 6010B	06/29/05	HD6CT1C2
			Dilution Factor: 1						
Thallium									
	2.1	200	187	mg/kg	93		SW846 6010B	06/29/05	HD6CT1C3
	2.1	200	186	mg/kg	92	0.49	SW846 6010B	06/29/05	HD6CT1C4
			Dilution Factor: 1						
Bismuth									
	94.3	200	308	mg/kg	107		SW846 6010B	06/29-07/05/05	HD6CT1C5
	94.3	200	296	mg/kg	101	4.1	SW846 6010B	06/29-07/05/05	HD6CT1C6
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04649 **Matrix.....:** SOLID
Date Sampled...: 06/13/05 **Date Received..:** 06/28/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F5F280301-001 **Prep Batch #...:** 5199157									
								% Moisture.....: 4.6	
Mercury									
	ND	0.175	0.163	mg/kg	93		SW846 7471A	07/18/05	HEJF41EC
	ND	0.175	0.163	mg/kg	93	0.0	SW846 7471A	07/18/05	HEJF41ED

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

FLUOR HANFORD IC

Client Sample ID: B1D9Y4

General Chemistry

Lot-Sample #...: F5F220233-001 Work Order #...: HD57V Matrix.....: SOLID
Date Sampled...: 06/08/05 Date Received..: 06/22/05
% Moisture.....:

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Phosphate as P, Ortho	2.6 B,J	5.0	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209219
		Dilution Factor: 1		MDL.....: 0.19		
pH (solid)	8.0	0.10	No Units	SW846 9045C	07/08/05	5192125
		Dilution Factor: 1		MDL.....:		
Chloride	1.7 B	2.0	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209215
		Dilution Factor: 1		MDL.....: 0.25		
Fluoride	ND	1.0	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209216
		Dilution Factor: 1		MDL.....: 0.051		
Hexavalent Chromium	ND	0.40	mg/kg	SW846 7196A	07/08/05	5189240
		Dilution Factor: 1		MDL.....: 0.25		
Nitrate	7.1	0.20	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209217
		Dilution Factor: 1		MDL.....: 0.10		
Nitrate/Nitrite as N	53.3	8.0	mg/kg	MCAWW 353.1	07/01/05	5182106
		Dilution Factor: 16		MDL.....: 0.43		
Nitrite	ND	0.20	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209218
		Dilution Factor: 1		MDL.....: 0.061		
Nitrogen, as Ammonia	ND	0.50	mg/kg	MCAWW 350.1	06/30/05	5181249
		Dilution Factor: 1		MDL.....: 0.058		
Oil and Grease (Gravimetric)	ND	1500	mg/kg	SW846 9071A	07/05/05	5187280
		Dilution Factor: 1		MDL.....: 82.6		
Sulfate	62.0	5.0	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209220
		Dilution Factor: 1		MDL.....: 0.61		
Total Inorganic Carbon	1490	25.0	mg/kg	SW846 9060	07/11/05	5202444
		Dilution Factor: 1		MDL.....: 7.9		

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FLUOR HANFORD IC

Client Sample ID: B1D9Y4

General Chemistry

Lot-Sample #...: F5F220233-001 Work Order #...: HD57V Matrix.....: SOLID

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	499	25.0	mg/kg	SW846 9060	07/11/05	5202443

Dilution Factor: 1 MDL.....: 7.9

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

C Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MA 8/10/05

FLUOR HANFORD IC

Client Sample ID: B1D9Y5

General Chemistry

Lot-Sample #...: F5F220233-003 Work Order #...: HD6CT Matrix.....: SOLID
Date Sampled...: 06/08/05 Date Received..: 06/22/05
% Moisture.....:

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Phosphate as P, Ortho	1.5 B,~~J~~ C	5.0	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209219
		Dilution Factor: 1		MDL.....: 0.19		
pH (solid)	8.8	0.10	No Units	SW846 9045C	07/08/05	5192125
		Dilution Factor: 1		MDL.....:		
Chloride	2.4	2.0	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209215
		Dilution Factor: 1		MDL.....: 0.25		
Fluoride	ND	1.0	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209216
		Dilution Factor: 1		MDL.....: 0.051		
Hexavalent Chromium	ND	0.40	mg/kg	SW846 7196A	07/08/05	5189240
		Dilution Factor: 1		MDL.....: 0.25		
Nitrate	2.2	0.20	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209217
		Dilution Factor: 1		MDL.....: 0.10		
Nitrate/Nitrite as N	ND	0.50	mg/kg	MCAWW 353.1	07/01/05	5182106
		Dilution Factor: 1		MDL.....: 0.027		
Nitrite	0.095 B	0.20	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209218
		Dilution Factor: 1		MDL.....: 0.051		
Nitrogen, as Ammonia	ND	0.50	mg/kg	MCAWW 350.1	06/30/05	5181249
		Dilution Factor: 1		MDL.....: 0.058		
Oil and Grease (Gravimetric)	ND	200	mg/kg	SW846 9071A	07/05/05	5187280
		Dilution Factor: 1		MDL.....: 82.6		
Sulfate	30.4	5.0	mg/kg	MCAWW 300.0A	07/27-07/28/05	5209220
		Dilution Factor: 1		MDL.....: 0.51		
Total Inorganic Carbon	793	25.0	mg/kg	SW846 9060	07/11/05	5202444
		Dilution Factor: 1		MDL.....: 7.9		

MH 8/10/05

(Continued on next page)

FLUOR HANFORD IC

Client Sample ID: B1D9Y5

General Chemistry

Lot-Sample #...: F5F220233-003 Work Order #...: HD6CT Matrix.....: SOLID

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon	1020	25.0	mg/kg	SW846 9060	07/11/05	5202443
		Dilution Factor: 1		MDL.....: 7.9		

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

C Method blank contamination. The associated method blank contains the target analyte at a reportable level.

JM 8/10/05

METHOD BLANK REPORT

General Chemistry

Client Lot #...: W04649 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride		Work Order #: HGFL91AA		MB Lot-Sample #:	F5G280000-215	
	ND	2.0	mg/kg	MCAWW 300.0A	07/27/05	5209215
		Dilution Factor: 1				
Fluoride		Work Order #: HGFMT1AA		MB Lot-Sample #:	F5G280000-216	
	ND	1.0	mg/kg	MCAWW 300.0A	07/27/05	5209216
		Dilution Factor: 1				
Hexavalent Chromium		Work Order #: HE38V1AA		MB Lot-Sample #:	F5G080000-240	
	ND	0.40	mg/kg	SW846 7196A	07/08/05	5189240
		Dilution Factor: 1				
Nitrate		Work Order #: HGFM31AA		MB Lot-Sample #:	F5G280000-217	
	ND	0.20	mg/kg	MCAWW 300.0A	07/27/05	5209217
		Dilution Factor: 1				
Nitrate/Nitrite as N		Work Order #: HEQWN1AA		MB Lot-Sample #:	F5G010000-106	
	ND	0.50	mg/kg	MCAWW 353.1	07/01/05	5182106
		Dilution Factor: 1				
Nitrite		Work Order #: HGFM51AA		MB Lot-Sample #:	F5G280000-218	
	ND	0.20	mg/kg	MCAWW 300.0A	07/27/05	5209218
		Dilution Factor: 1				
Nitrogen, as Ammonia		Work Order #: HENXE1AA		MB Lot-Sample #:	F5F300000-249	
	ND	0.50	mg/kg	MCAWW 350.1	06/30/05	5181249
		Dilution Factor: 1				
Oil and Grease (Gravimetric)		Work Order #: HEXVP1AA		MB Lot-Sample #:	F5G060000-280	
	ND	200	mg/kg	SW846 9071A	07/05/05	5187280
		Dilution Factor: 1				
Phosphate as P, Ortho		Work Order #: HGFNH1AA		MB Lot-Sample #:	F5G280000-219	
	2.0 B	**5.0**	**mg/kg**	**MCAWW 300.0A**	**07/27/05**	**5209219**
		Dilution Factor: 1				
Sulfate		Work Order #: HGFNN1AA		MB Lot-Sample #:	F5G280000-220	
	ND	5.0	mg/kg	MCAWW 300.0A	07/27/05	5209220
		Dilution Factor: 1				

(Continued on next page)

METHOD BLANK REPORT

General Chemistry

Client Lot #...: W04649 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Inorganic Carbon		Work Order #: HF61Q1AA		MB Lot-Sample #:	F5G210000-444	
	ND	25.0	mg/kg	SW846 9060	07/11/05	5202444
		Dilution Factor: 1				
Total Organic Carbon		Work Order #: HF61P1AA		MB Lot-Sample #:	F5G210000-443	
	ND	25.0	mg/kg	SW846 9060	07/11/05	5202443
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: W04649 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride			WO#:HGFL91AC-LCS/HGFL91AD-LCSD			LCS Lot-Sample#: F5G280000-215		
	10.0	9.11	mg/kg	91		MCAWW 300.0A	07/27/05	5209215
	10.0	9.31	mg/kg	93	2.1	MCAWW 300.0A	07/27/05	5209215
			Dilution Factor: 1					
Fluoride			WO#:HGFMT1AC-LCS/HGFMT1AD-LCSD			LCS Lot-Sample#: F5G280000-216		
	5.00	4.44	mg/kg	89		MCAWW 300.0A	07/27/05	5209216
	5.00	4.34	mg/kg	87	2.3	MCAWW 300.0A	07/27/05	5209216
			Dilution Factor: 1					
Hexavalent Chromium			WO#:HE38V1AC-LCS/HE38V1AD-LCSD			LCS Lot-Sample#: F5G080000-240		
	2.00	1.89	mg/kg	94		SW846 7196A	07/08/05	5189240
	2.00	1.79	mg/kg	89	5.4	SW846 7196A	07/08/05	5189240
			Dilution Factor: 1					
Nitrate			WO#:HGFM31AC-LCS/HGFM31AD-LCSD			LCS Lot-Sample#: F5G280000-217		
	2.00	2.02	mg/kg	101		MCAWW 300.0A	07/27/05	5209217
	2.00	1.95	mg/kg	98	3.4	MCAWW 300.0A	07/27/05	5209217
			Dilution Factor: 1					
Nitrate/Nitrite as N			WO#:HEQWN1AC-LCS/HEQWN1AD-LCSD			LCS Lot-Sample#: F5G010000-106		
	4.00	3.74	mg/kg	94		MCAWW 353.1	07/01/05	5182106
	4.00	3.82	mg/kg	96	2.1	MCAWW 353.1	07/01/05	5182106
			Dilution Factor: 1					
Nitrite			WO#:HGFM51AC-LCS/HGFM51AD-LCSD			LCS Lot-Sample#: F5G280000-218		
	0.800	0.763	mg/kg	95		MCAWW 300.0A	07/27/05	5209218
	0.800	0.814	mg/kg	102	6.4	MCAWW 300.0A	07/27/05	5209218
			Dilution Factor: 1					
Nitrogen, as Ammonia			WO#:HENXE1AC-LCS/HENXE1AD-LCSD			LCS Lot-Sample#: F5F300000-249		
	4.00	3.79	mg/kg	95		MCAWW 350.1	06/30/05	5181249
	4.00	3.75	mg/kg	94	1.1	MCAWW 350.1	06/30/05	5181249
			Dilution Factor: 1					
Oil and Grease (Gravimetric)			WO#:HEXVP1AC-LCS/HEXVP1AD-LCSD			LCS Lot-Sample#: F5G060000-280		
	3330	2800	mg/kg	84		SW846 9071A	07/05/05	5187280
	3330	2700	mg/kg	81	3.6	SW846 9071A	07/05/05	5187280
			Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: W04649 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Phosphate as P, Ortho			WO#:HGFNH1AC-LCS/HGFNH1AD-LCSD			LCS Lot-Sample#: F5G280000-219		
	40.0	41.1	mg/kg	103		MCAWW 300.0A	07/27/05	5209219
	40.0	40.8	mg/kg	102	0.65	MCAWW 300.0A	07/27/05	5209219
			Dilution Factor: 1					
Sulfate			WO#:HGFNN1AC-LCS/HGFNN1AD-LCSD			LCS Lot-Sample#: F5G280000-220		
	40.0	36.7	mg/kg	92		MCAWW 300.0A	07/27/05	5209220
	40.0	36.6	mg/kg	92	0.17	MCAWW 300.0A	07/27/05	5209220
			Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: W04649 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (solid)			Work Order #: HE7QA1AA LCS Lot-Sample#: F5G110000-125				
	7.00	7.03	No Units	100	SW846 9045C	07/08/05	5192125
			Dilution Factor: 1				
Total Inorganic Carbon			Work Order #: HF61Q1AC LCS Lot-Sample#: F5G210000-444				
	1000	1120	mg/kg	112	SW846 9060	07/11/05	5202444
			Dilution Factor: 1				
Total Organic Carbon			Work Order #: HF61P1AC LCS Lot-Sample#: F5G210000-443				
	1000	1120	mg/kg	112	SW846 9060	07/11-07/25/05	5202443
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: W04649 **Matrix.....:** SOLID
Date Sampled...: 06/13/05 **Date Received..:** 06/28/05

Percnt Moisture: 1.4

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride			Work Order #...:		HEJF41DG	MS Lot-Sample #: F5F280301-001		
	0.76	21.0	20.4	mg/kg	94	MCAWW 300.0A	07/27-07/28/05	5209215
			Dilution Factor: 1					
Fluoride			Work Order #...:		HEJF41DH	MS Lot-Sample #: F5F280301-001		
	ND	21.0	18.7	mg/kg	89	MCAWW 300.0A	07/27-07/28/05	5209216
			Dilution Factor: 1					
Hexavalent Chromium			Work Order #...:		HD3KL1FU	MS Lot-Sample #: F5F210233-028		
	ND	40.3	36.3	mg/kg	90	SW846 7196A	07/08/05	5189240
			Dilution Factor: 1					
Hexavalent Chromium			Work Order #...:		HEJF41DC	MS Lot-Sample #: F5F280301-001		
	ND	40.0	37.2	mg/kg	93	SW846 7196A	07/08/05	5189240
			Dilution Factor: 1					
Nitrate			Work Order #...:		HEJF41DJ	MS Lot-Sample #: F5F280301-001		
	0.35	4.19	4.60	mg/kg	101	MCAWW 300.0A	07/27-07/28/05	5209217
			Dilution Factor: 1					
Nitrate/Nitrite as N			Work Order #...:		HEJF41DF	MS Lot-Sample #: F5F280301-001		
	5.8	5.00	9.80 N	mg/kg	81	MCAWW 353.1	07/01/05	5182106
			Dilution Factor: 1					
Nitrite			Work Order #...:		HEJF41DK	MS Lot-Sample #: F5F280301-001		
	ND	1.05	0.980	mg/kg	94	MCAWW 300.0A	07/27-07/28/05	5209218
			Dilution Factor: 1					
Nitrogen, as Ammonia			Work Order #...:		HEJF41D7	MS Lot-Sample #: F5F280301-001		
	ND	5.24	5.00	mg/kg	95	MCAWW 350.1	06/30/05	5181249
			Dilution Factor: 1					
Phosphate as P, Ortho			Work Order #...:		HEJF41DL	MS Lot-Sample #: F5F280301-001		
	1.5	41.9	45.8	mg/kg	106	MCAWW 300.0A	07/27-07/28/05	5209219
			Dilution Factor: 1					
Sulfate			Work Order #...:		HEJF41DA	MS Lot-Sample #: F5F280301-001		
	3.4	41.9	42.8	mg/kg	94	MCAWW 300.0A	07/27-07/28/05	5209220
			Dilution Factor: 1					

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: W04649 **Matrix.....:** SOLID
Date Sampled...: 06/13/05 **Date Received..:** 06/28/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Inorganic Carbon			Work Order #...:		HEJF41DD		MS Lot-Sample #: F5F280301-001	
	732	2100	9040 N	mg/kg	396	SW846 9060	07/11-07/25/05	5202444
			Dilution Factor: 1					
Total Organic Carbon			Work Order #...:		HEJF41DE		MS Lot-Sample #: F5F280301-001	
	947	2100	11000 N	mg/kg	479	SW846 9060	07/11-07/25/05	5202443
			Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F5F220233 **Work Order #...:** HEJF4-SMP HEJF4-DUP **Matrix.....:** SOLID

Date Sampled...: 06/13/05 **Date Received..:** 06/28/05

% Moisture.....: 4.6

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate/Nitrite as N						SD Lot-Sample #:	F5F280301-001	
	5.8	5.6	mg/kg	3.5	(0-30)	MCAWW 353.1	07/01/05	5182106
			Dilution Factor: 1					
Chloride						SD Lot-Sample #:	F5F280301-001	
	0.76 B	0.84 B	mg/kg	9.1	(0-30)	MCAWW 300.0A	07/27-07/28/05	5209215
			Dilution Factor: 1					
Fluoride						SD Lot-Sample #:	F5F280301-001	
	ND	ND	mg/kg	0	(0-30)	MCAWW 300.0A	07/27-07/28/05	5209216
			Dilution Factor: 1					
Nitrate						SD Lot-Sample #:	F5F280301-001	
	0.35	0.34	mg/kg	1.4	(0-30)	MCAWW 300.0A	07/27-07/28/05	5209217
			Dilution Factor: 1					
Nitrite						SD Lot-Sample #:	F5F280301-001	
	ND	ND	mg/kg	0	(0-30)	MCAWW 300.0A	07/27-07/28/05	5209218
			Dilution Factor: 1					
Phosphate as P, Ortho						SD Lot-Sample #:	F5F280301-001	
	1.5 B, ~~B~~ C	ND	mg/kg	200	(0-30)	MCAWW 300.0A	07/27-07/28/05	5209219
			Dilution Factor: 1					
Sulfate						SD Lot-Sample #:	F5F280301-001	
	3.4 B	3.1 B	mg/kg	9.7	(0-30)	MCAWW 300.0A	07/27-07/28/05	5209220
			Dilution Factor: 1					
Nitrogen, as Ammonia						SD Lot-Sample #:	F5F280301-001	
	ND	ND	mg/kg	0	(0-30)	MCAWW 350.1	06/30/05	5181249
			Dilution Factor: 1					
Hexavalent Chromium						SD Lot-Sample #:	F5F280301-001	
	ND	ND	mg/kg	0	(0-30)	SW846 7196A	07/08/05	5189240
			Dilution Factor: 1					
pH (solid)						SD Lot-Sample #:	F5F280301-001	
	8.9	8.8	No Units	1.2	(0-15)	SW846 9045C	07/08/05	5192125
			Dilution Factor: 1					
Total Inorganic Carbon						SD Lot-Sample #:	F5F280301-001	
	732	427	mg/kg	53	(0-30)	SW846 9060	07/11/05	5202444
			Dilution Factor: 1					

MH 8/10/05

(Continued on next page)

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Lot-Sample #...: F5F220233-000 Work Order #...: HEJF4-SMP HEJF4-DUP Matrix.....: SOLID

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon						SD Lot-Sample #:	F5F280301-001	
	947	709	mg/kg	29	(0-30)	SW846 9060	07/11/05	5202443

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

✓ Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C 8/10/05

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F5F220233 **Work Order #...:** HD3KL-SMP HD3KL-DUP **Matrix.....:** SOLID

Date Sampled...: 06/17/05 **Date Received..:** 06/21/05

% Moisture.....: 0.78

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium						SD Lot-Sample #: F5F210233-028		
	ND	ND	mg/kg	0	(0-30)	SW846 7196A	07/08/05	5189240

Dilution Factor: 1

LOT# F5-420233

SDG# B0046 49

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STL ST. LOUIS

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F05-023-048	PAGE 1 OF 1
COLLECTOR: Pope/Pfister/Molder/Wels/Tyra	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8N
SAMPLING LOCATION: 216-A-8, Rad Int 1	PROJECT DESIGNATION: 216-A-8 Crib Characterization Borehole		SAF NO.: F05-023	AIR QUALITY ☐
ICE CHEST NO.: SIN 04/04-010043	FIELD LOGBOOK NO.: HNF-N-336-1	COA: 119152ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	DATA TURNAROUND: 45 Days / 45 Days
SHIPPED TO: Severn Trent St. Louis	OFFSITE PROPERTY NO.: SuRSR E0028000		BILL OF LADING/AIR BILL NO.: SuRSR E0028000	

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegitation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Radioactive tie to B1D9C1

SPECIAL HANDLING AND/OR STORAGE: Utilize half full 120mL bottle for laboratory.

PRESERVATION				Cool 4C	Cool 4C									
TYPE OF CONTAINER				aGs*	aG									
NO. OF CONTAINER(S)				1	1									
VOLUME				40mL	60mL									
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS									
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME											
B1D9Y4	SOIL	6/8/05	0920	X	X									

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: J Stokes/ [illegible] 6-8-05	DATE/TIME: 1030	RECEIVED BY/STORED IN: Site Rma Fridge 6-8-05	DATE/TIME: 1030
RELINQUISHED BY/REMOVED FROM: Site Fridge 6-15-05	DATE/TIME: 1310	RECEIVED BY/STORED IN: J Stokes/ [illegible] 6-15-05	DATE/TIME: 1310
RELINQUISHED BY/REMOVED FROM: J Stokes/ [illegible] 6-15-05	DATE/TIME: 1500	RECEIVED BY/STORED IN: [illegible] Ref #3 6-15-05	DATE/TIME: 1500
RELINQUISHED BY/REMOVED FROM: [illegible] 6/21/05	DATE/TIME: 1200	RECEIVED BY/STORED IN: M.H. Bowling/M.G. Bowling 6/21/05	DATE/TIME: 1200
RELINQUISHED BY/REMOVED FROM: M.H. Bowling/M.G. Bowling 6/21/05	DATE/TIME: 1200	RECEIVED BY/STORED IN: [illegible]	DATE/TIME:
RELINQUISHED BY/REMOVED FROM:	DATE/TIME:	RECEIVED BY/STORED IN:	DATE/TIME:
RELINQUISHED BY/REMOVED FROM:	DATE/TIME:	RECEIVED BY/STORED IN:	DATE/TIME:

SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION	RECEIVED BY: Jill Clarke 6.22.05 @ 0900	TITLE:	DATE/TIME:
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD:	DISPOSED BY:	DATE/TIME:

3-6003-618(03/03)

LOT# F5F120233

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F05-023-048	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Mokler/Wels/Tyra	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN DATA TURNAROUND
SAMPLING LOCATION 216-A-8, Rad Int 1	PROJECT DESIGNATION 216-A-8 Crib Characterization Borehole		SAP NO. F05-023	AIR QUALITY ☐ 45 Days
ICE CHEST NO. S/N 04/04-01 2043	FIELD LOGBOOK NO. HNF-N-336-1	COA 119152ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Severn Trent St. Louis	OFFSITE PROPERTY NO. See RSR E0028000		BILL OF LADING/AIR BILL NO. See RSR E0028000	

SPECIAL INSTRUCTIONS

Lab is to utilize 40 mL VOA bottle for VOA analysis and 60 mL sample volume for all remaining analyses.
(1)VOA - 8260B (TCL); VOA - 8260B (Add-On) {1-Butanol, 1-Propanol, 2-Pentanone, Acetonitrile, Cyclohexane, Ethanol, Hexane, Tetrahydrofuran, Trichloromonofluoromethane, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}
(2)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) {1,2,4-Trimethylbenzene, 2-Butoxyethanol, 2-Naphthylamine, 3+4 Methylphenol (cresol, m+p), Benzyl alcohol, Cyclohexanone, Decane, Pyridine, Tributyl phosphate} TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} ICP Metals - 6010B (Supertrace); ICP Metals - 6010B (Supertrace Add-On) {Bismuth, Copper, Nickel, Phosphorus} Mercury - 7471 - (CV); PCBs - 8082; Oil & Grease - 413.1; TIC - 415.1M; TOC - 415.1; Chromium Hex - 7196; NO2/NO3 - 353.1; IC Anions - 300.0 {Chloride, Fluoride, Nitrate, Nitrite, Phosphate, Sulfate} Ammonia - 350.1; pH (Soil) - 9045;

SDG# W04649

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F-6003-618(03/03)

STL ST. LOUIS

LOT# E5H20

SDG# 0046449

STL ST. LOUIS

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F05-023-058	PAGE 1 OF 1
COLLECTOR: Pope/Pfister/Molder/Weis/Tyra	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8N
SAMPLING LOCATION: 216-A-8, I-2 VOA	PROJECT DESIGNATION: 216-A-8 Crib Characterization Borehole		SAF NO.: F05-023	AIR QUALITY ☐
ICE CHEST NO.: 6/21/05 See GRP-05-015	FIELD LOGBOOK NO.: HNF-N-336-1	COA: 119152ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	DATA TURNAROUND: 45 Days / 45 Days
SHIPPED TO: Severn Trent St. Louis	OFFSITE PROPERTY NO.: See PTR 15792		BILL OF LADING/AIR BILL NO.: See PTR 15792	

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegitation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Rad to to B1DB28

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool 4C											
TYPE OF CONTAINER	aGs*											
NO. OF CONTAINER(S)	3											
VOLUME	40mL											
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS											

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME											
B1DB24	SOIL	6/9/05	0925	X										

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: JSMAS/ASTor 6.9.05	DATE/TIME: 1106	RECEIVED BY/STORED IN: Site Rmd Fridge 6.9.05	DATE/TIME: 1100
RELINQUISHED BY/REMOVED FROM: A8 SITE FRIG 6/15/05	DATE/TIME: 1010	RECEIVED BY/STORED IN: R. PFISTER/Pfister 6/15/05	DATE/TIME: 1010
RELINQUISHED BY/REMOVED FROM: R.PFISTER/Pfister 6/15/05	DATE/TIME: 12:30	RECEIVED BY/STORED IN: TA FREZIER/Freezer 6/15/05	DATE/TIME: 12:30
RELINQUISHED BY/REMOVED FROM: [illegible] 6/15/05	DATE/TIME: 1340	RECEIVED BY/STORED IN: JSMAS/ASTor 6.15.05	DATE/TIME: 1340
RELINQUISHED BY/REMOVED FROM: JSMAS/ASTor 6.15.05	DATE/TIME: 1500	RECEIVED BY/STORED IN: MO-026/Reg # 3 6.15.05	DATE/TIME: 1500
RELINQUISHED BY/REMOVED FROM: MO-026/Reg # 3 6/21/05	DATE/TIME: 0930	RECEIVED BY/STORED IN: M.H. Bauchmann/M.H. Bauchmann 6/21/05	DATE/TIME: 0930
RELINQUISHED BY/REMOVED FROM: M.H. Bauchmann/M.H. Bauchmann 6/21/05	DATE/TIME: 0930	RECEIVED BY/STORED IN: [illegible]	DATE/TIME:

SPECIAL INSTRUCTIONS

(1)VOA - 8260B (TCL); VOA - 8260B (Add-On) {1-Butanol, 1-Propanol, 2-Pentanone, Acetonitrile, Cyclohexane, Ethanol, Hexane, Tetrahydrofuran, Trichloromonofluoromethane, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}

LABORATORY SECTION	RECEIVED BY: B-A-P 6/22/05 0845	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PAGE 1 OF 1

2A-6003-618(03/03)

LOT# F5F520233

SDG# N04649

STL ST. LOUIS

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F05-023-049	PAGE 1 OF 2
COLLECTOR: Pope/Pfister/Mokler/Weis/Tyra	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: BN; AIR QUALITY: ☐; DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: 216-A-8, Rad Int 2	PROJECT DESIGNATION: 216-A-8 Crib Characterization Borehole		SAF NO.: F05-023	
ICE CHEST NO.: GRP-05-015	FIELD LOGBOOK NO.: HNF-N-336-1	COA: 119152ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	
SHIPPED TO: Severn Trent St. Louis	OFFSITE PROPERTY NO.: 5a PTC 15792		BILL OF LADING/AIR BILL NO.: 5a PTC 15792	

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Radioactive tie to B1D9C1

SPECIAL HANDLING AND/OR STORAGE: Lab is to utilize single 60 mL bottle for all analyses on chain of custody.

PRESERVATION	Cool 4C	Cool 4C
TYPE OF CONTAINER	aGs*	aG
NO. OF CONTAINER(S)	2	1
VOLUME	40mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B1D9Y5	SOIL	6-8-05	1425	X	X

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
JSPope/[illegible]	6-8-05 1530	site RMA Frige	6-8-05 1530
SITE RMA FRIDGE	6/15/05 1256	R. Pfister/[illegible]	6/15/05 1256
R. Pfister/[illegible]	6/15/05 1500	MO-026 REFR #3	6/15/05
MO-026 REFR #3 [illegible]	6/23/05 3:40	M.H. Pfister M.G. Bruther	6/23/05 0845
M.H. Pfister M.G. Bruther	6/23/05 0845	Lab [illegible]	

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

JAR FOR ITEM (2) IS A 120 mL JAR ≈ ½ FULL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
	B-P-F		6/22/05 0845
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

79 OF 82

A-6003-618(03/03)

LOT# H5F220233

STL ST. LOUIS

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F05-023-049	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Mokler/Weis/Tyra	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-A-8, Rad Int 2	PROJECT DESIGNATION 216-A-8 Crib Characterization Borehole		SAF NO. F05-023	AIR QUALITY ☐	45 Days
ICE CHEST NO. GRP-05-015	FIELD LOGBOOK NO. HNF-N-336-1	COA 119152ES10	METHOD OF SHIPMENT FEDERAL EXPRESS		
SHIPPED TO Severn Trent St. Louis	OFFSITE PROPERTY NO. Su PTL 15792		BILL OF LADING/AIR BILL NO. Su PTL 15792		

SPECIAL INSTRUCTIONS

Except for VOA analysis, laboratory is to utilize 60 mL sample volume for all other analysis.
(1)VOA - 8260B (TCL); VOA - 8260B (Add-On) {1-Butanol, 1-Propanol, 2-Pentanone, Acetonitrile, Cyclohexane, Ethanol, Hexane, Tetrahydrofuran, Trichloromonofluoromethane, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}
(2)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) {1,2,4-Trimethylbenzene, 2-Butoxyethanol, 2-Naphthylamine, 3+4 Methylphenol (cresol, m+p), Benzyl alcohol, Cyclohexanone, Decane, Pyridine, Tributyl phosphate} TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} ICP Metals - 6010B (Supertrace); ICP Metals - 6010B (Supertrace Add-On) {Bismuth, Copper, Nickel, Phosphorus} Mercury - 7471 - (CV); PCBs - 8082; Oil & Grease - 413.1; TIC - 415.1M; TOC - 415.1; Chromium Hex - 7196; NO2/NO3 - 353.1; IC Anions - 300.0 {Chloride, Fluoride, Nitrate, Nitrite, Phosphate, Sulfate} Ammonia - 350.1; pH (Soil) - 9045;

SDG# W04649

6003-618(03/03)

80 01 82

SEVERN TRENT STL

Lot No: F5F220233

Condition Upon Receipt Form
St. Louis Laboratory

Client: Hanford

Date: 6-22-05 Time: 0900

Quote No:

Initiated by:

Shipper/No: 7916 5766 7094 Fed Ex

COC/RFA Numbers: F05-023

Condition/Variance (Circle " Y" for yes , " N" for no and " N/A" for not applicable):

1.	Y N	Sample received in undamaged condition?	7.	Y N	Sample received with Chain of Custody?
2.	Y N	Sample received within 4-C ± 2-C* ?	8.	Y N	Chain of Custody matches sample IDs on containers?
		Record 5°	9.	Y N N/A	Custody seal received intact on cooler.?
3.	Y N N/A	Sample received with proper pH [1]?	10.	Y N N/A	Custody seal tamper evident on cooler.?
4.	Y N	If N/A - Was pH taken by original STL lab?	11.	Y N N/A	Custody seal on bottles received intact?
5.	Y N	Sample received in proper containers?	12.	Y N N/A	Custody seal tamper evident on bottles?
6.	Y N ?	Sample volume sufficient for analysis?	13.	Y N	Was CUR (equivalent) rec' d from original STL lab?

*** Temperature Variance Does Not Affect the Following Analyses:**

[1]For DOE-AL (Pantex, LANL, Sandia) sites, verify pH all containers received, except for VOA, TOX, and soils.

Notes:

Corrective Action:

☐ Client's Name: Informed by: By:

☐ Sample(s) processed "as is".

☐ Sample(s) on hold until: If released, notify:

Project Management Review: Date: 6/23/05

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED
IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIALS AND THE DATE NEXT TO THAT ITEM

7111

ADMIN-0004, Revised 2/17/04
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SEVERN TRENT **STL**

Lot No: F5F220233

Condition Upon Receipt Form
St. Louis Laboratory

Client: Hanford
Quote No: 65281
Shipper/No: FE/790060216534

Date: 6/22/05 Time: 0845
Initiated by: BW
COC/RFA Numbers: F05-023

Condition/Variance (Circle " Y" for yes , " N" for no and " N/A" for not applicable):

1.	Y N	Sample received in undamaged condition?	7.	Y N	Sample received with Chain of Custody?
2.	Y N	Sample received within 4°C ± 2°C* ?	8.	Y N	Chain of Custody matches sample IDs on containers?
		Record 17°	9.	Y N N/A	Custody seal received intact on cooler.?
3.	Y N N/A	Sample received with proper pH [1]?	10.	Y N N/A	Custody seal tamper evident on cooler.?
4.	Y N	If N/A - Was pH taken by original STL lab?	11.	Y N N/A	Custody seal on bottles received intact?
5.	Y N	Sample received in proper containers?	12.	Y N N/A	Custody seal tamper evident on bottles?
6.	Y N	Sample volume sufficient for analysis?	13.	Y N	Was CUR (equivalent) rec' d from original STL lab?

* Temperature Variance Does Not Affect the Following Analyses:

[1]For DOE-AL (Pantex, LANL, Sandia) sites, verify pH all containers received, except for VOA, TOX, and soils.

Notes: received samples out of temp 17° - bag of ice was melted - Samples B1DB24 - B1D945

Corrective Action:

☒ Client's Name: Steve Trent Informed by: Email By: MW/MA

☒ Sample(s) processed "as is".

☐ Sample(s) on hold until: If released, notify:

Project Management Review: Date: 6/23/05

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED
IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIALS AND THE DATE NEXT TO THAT ITEM