

Chemical and Environmental Measurement Information

**Recra LabNet Philadelphia
Analytical Report
REVISION**

Client : TNU-HANFORD B99-085
RFW# : 9908L851
SDG/SAF #: H0500/B99-085

W.O. #: 10985-001-001-9999-00
Date Received: 08-24-99

SEMIVOLATILE

RECEIVED
MAR 20 2000

This narrative was corrected to add the TIC search for Tributylphosphate.

One (1) water sample was collected on 08-19-99.

EDMC

The sample and its associated QC samples were extracted on 08-26-99 and analyzed according to criteria set forth in Recra OPs based on SW 846 Method 8270B for TCL Semivolatile target compounds on 09-13-99.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. The cooler temperature upon receipt has been recorded on the chain-of-custody.
2. The required holding times for extraction and analysis were met.
3. Non-target compounds were detected in the sample.
4. All surrogate recoveries were within EPA QC limits.
5. One (1) of twenty-two (22) matrix spike recoveries was outside EPA QC limits.
6. All blank spike recoveries were within EPA QC limits.
7. The method blank contained the common laboratory contaminant Bis(2-Ethylhexyl)phthalate at a level greater than 5x the CRQL; however, no other compounds were detected in the samples. Re-extraction was not required. A copy of the Sample Discrepancy Report (SDR) has been enclosed.
8. A spectral search was conducted for the compound Butylated Hydroxytoluene and Tributylphosphate; these compounds were not identified in the samples.

RECEIVED
FEB 2000
Data Log

J. Michael Taylor

J. Michael Taylor
Vice President
Philadelphia Analytical Laboratory

01-27-00

Date

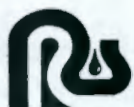
pe\gornup\data\bna\tnu08851.doc

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 10 pages, including page # 3A.

GLOSSARY OF BNA DATA

DATA QUALIFIERS

- U** = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.
- J** = Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
- B** = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.
- E** = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- D** = Identifies all compounds identified in an analysis at a secondary dilution factor.
- I** = Interference.
- NQ** = Result qualitatively confirmed but not able to quantify.
- A** = Indicates that a TIC is a suspected aldol-condensation product.
- N** = Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- X** = This flag is used for a TIC compound which is quantified relative to a response factor generated from a daily calibration standard (rather than quantified relative to the closest internal standard).
- Y** = Additional qualifiers used as required are explained in the case narrative.



GLOSSARY OF BNA DATA

ABBREVIATIONS

- BS** = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.
- BSD** = Indicates blank spike duplicate.
- MS** = Indicates matrix spike.
- MSD** = Indicates matrix spike duplicate.
- DL** = Suffix added to sample number to indicate that results are from a diluted analysis.
- NA** = Not Applicable.
- DF** = Dilution Factor.
- NR** = Not Required.
- SP, Z** = Indicates Spiked Compound.



Initiator: C Taylor RFW Batch: 99081851
 Date: 9/28/99 Samples: all
 Client: IND-Hanford Method: SW846/MCAWW/CLP
B99-085

Parameter: BNA
 Matrix: water/cont.
 Prep Batch: FILE1035-MB1

1. Reason for SDR

- a. COC Discrepancy Tech Profile Error Client Request Sampler Error on C-O-C
 Transcription Error Wrong Test Code Other _____
- b. General Discrepancy
 Missing Sample/Extract Container Broken Wrong Sample Pulled Label ID's Illegible
 Hold Time Exceeded Insufficient Sample Preservation Wrong Received Past Hold
 Improper Bottle Type Not Amenable to Analysis

Note: Verified by [Log-In] or [Prep Group] (circle)...signature/date: _____

c. QC Problem (Include all relevant specific results; attach data if necessary)

Blank contained 75X CRQL of bis (2 Ethyl Hexyl) phthalate (65 µg/L)

2. Known or Probable Causes(s)

lab contamination.

3. Discussion and Proposed Action

Other Description:

- Re-log
- Entire Batch
- Following Samples: _____
- Re-leach
- Re-extract
- Re-digest
- Revise EDD
- Change Test Code to _____
- Place On/Take Off Hold (circle)

Sampler & QC were contained
 no targets except phthalate. Amounts
 detected were 10-59 µg/L
 report & narrative

4. Project Manager Instructions...signature/date:

- Concur with Proposed Action
- Disagree with Proposed Action; See Instruction
- Include in Case Narrative
- Client Contacted:
- Date/Person _____
- Add
- Cancel

Philip Joh 9/28/99

5. Final Action...signature/date:

Other Explanation:

- Verified re-[log][leach][extract][digest][analysis] (circle)
- Included in Case Narrative
- Hard Copy COC Revised
- Electronic COC Revised
- EDD Corrections Completed

C Taylor 9/28/99

When Final Action has been recorded, forward original to QA Specialist for distribution and filing.

Route	Distribution of Completed SDR	Route	Distribution of Completed SDR
<input checked="" type="checkbox"/>	Initiator	<input type="checkbox"/>	Metals: Doughty
<input checked="" type="checkbox"/>	Lab Manager: M. Taylor	<input type="checkbox"/>	Inorganic: Perrone
<input checked="" type="checkbox"/>	Project Mgr: Stone/Carey/Schrenkel/Johnson	<input type="checkbox"/>	GC/LC: Schnell
<input checked="" type="checkbox"/>	Section Mgr: Wesson/Daniels	<input type="checkbox"/>	MS: LeMin/Taylor
<input checked="" type="checkbox"/>	QA (file): Racioppi	<input type="checkbox"/>	Log-in: Toder
<input type="checkbox"/>	Data Management: Feldman	<input type="checkbox"/>	Admin: Soos
<input type="checkbox"/>	Sample Prep: Schnell/Doughty/Kauffman	<input type="checkbox"/>	Other: _____

Cust ID: BOW679 BOW679 BOW679 SBLKBT SBLKBT BS
 RFW#: 001 001 MS 001 MSD 99LE1035-MB1 99LE1035-MB1

50

2-Chloronaphthalene	12 U	24 U	24 U	10 U	10 U
2-Nitroaniline	30 U	60 U	60 U	25 U	25 U
Dimethylphthalate	12 U	24 U	24 U	10 U	10 U
Acenaphthylene	12 U	24 U	24 U	10 U	10 U
2,6-Dinitrotoluene	12 U	24 U	24 U	10 U	10 U
3-Nitroaniline	30 U	60 U	60 U	25 U	25 U
Acenaphthene	12 U	92 %	86 %	10 U	72 %
2,4-Dinitrophenol	30 U	60 U	60 U	25 U	25 U
4-Nitrophenol	30 U	59 %	72 %	25 U	53 %
Dibenzofuran	12 U	24 U	24 U	10 U	10 U
2,4-Dinitrotoluene	12 U	94 %	100 * %	10 U	78 %
Diethylphthalate	12 U	2 J	24 U	10 U	10 U
4-Chlorophenyl-phenylether	12 U	24 U	24 U	10 U	10 U
Fluorene	12 U	24 U	24 U	10 U	10 U
4-Nitroaniline	30 U	60 U	60 U	25 U	25 U
4,6-Dinitro-2-methylphenol	30 U	60 U	60 U	25 U	25 U
N-Nitrosodiphenylamine (1)	12 U	24 U	24 U	10 U	10 U
4-Bromophenyl-phenylether	12 U	24 U	24 U	10 U	10 U
Hexachlorobenzene	12 U	24 U	24 U	10 U	10 U
Pentachlorophenol	30 U	74 %	82 %	25 U	62 %
Phenanthrene	12 U	24 U	24 U	10 U	10 U
Anthracene	12 U	24 U	24 U	10 U	10 U
Carbazole	12 U	24 U	24 U	10 U	10 U
Di-n-butylphthalate	12 U	24 U	24 U	10 U	10 U
Fluoranthene	12 U	24 U	24 U	10 U	10 U
Pyrene	12 U	86 %	77 %	10 U	74 %
Butylbenzylphthalate	12 U	24 U	24 U	10 U	10 U
3,3'-Dichlorobenzidine	12 U	24 U	24 U	10 U	10 U
Benzo(a)anthracene	12 U	24 U	24 U	10 U	10 U
Chrysene	12 U	24 U	24 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	51 B	59 B	10 JB	65	24 B
Di-n-octyl phthalate	12 U	24 U	24 U	10 U	10 U
Benzo(b)fluoranthene	12 U	24 U	24 U	10 U	10 U
Benzo(k)fluoranthene	12 U	24 U	24 U	10 U	10 U
Benzo(a)pyrene	12 U	24 U	24 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	12 U	24 U	24 U	10 U	10 U
Dibenz(a,h)anthracene	12 U	24 U	24 U	10 U	10 U
Benzo(g,h,i)perylene	12 U	24 U	24 U	10 U	10 U

(1) - Cannot be separated from Diphenylamine. *= Outside of EPA CLP QC limits.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B0W679

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNU-HANFORD B99-085

Matrix: (soil/water) WATER Lab Sample ID: 9908L851-001

Sample wt/vol: 820 (g/mL) ML Lab File ID: A091312

Level: (low/med) LOW Date Received: 08/24/99

% Moisture: decanted: (Y/N) Date Extracted: 08/26/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/13/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 6 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.16	2	J
2.	UNKNOWN	7.96	2	J
3.	UNKNOWN	8.23	4	J
4.	UNKNOWN	8.49	4	J
5.	UNKNOWN	8.59	5	J
6.	UNKNOWN	23.72	5	J

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLKBT

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNU-HANFORD B99-085

Matrix: (soil/water) WATER Lab Sample ID: 99LE1035-MB1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A091307

Level: (low/med) LOW Date Received: 08/26/99

% Moisture: decanted: (Y/N) Date Extracted: 08/26/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/13/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 CONCENTRATION UNITS:

Number TICs found: 8 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.27	5	J
2.	UNKNOWN	7.96	10	J
3.	UNKNOWN	8.02	4	J
4.	UNKNOWN	8.23	6	J
5.	UNKNOWN	8.26	3	J
6.	UNKNOWN	8.50	6	J
7.	UNKNOWN	8.58	10	J
8.	UNKNOWN	8.66	2	J

Recra LabNet - Lionville Laboratory
BNA ANALYTICAL DATA PACKAGE FOR
TNU-HANFORD B99-085

DATE RECEIVED: 08/24/99

RFW LOT # :9908L851

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BOW679	001	W	99LE1035	08/19/99	08/26/99	09/13/99
BOW679	001 MS	W	99LE1035	08/19/99	08/26/99	09/13/99
BOW679	001 MSD	W	99LE1035	08/19/99	08/26/99	09/13/99

LAB QC:

SBLKBT	MB1	W	99LE1035	N/A	08/26/99	09/13/99
SBLKBT	MB1 BS	W	99LE1035	N/A	08/26/99	09/13/99

