

# National Health and Nutrition Examination Survey 2003-2004

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## Documentation, Codebook, and Frequencies

**Laboratory Component:**  
Polycyclic Aromatic Hydrocarbons

**Survey Years:**  
**2003 to 2004**

**SAS Export File:**  
**L31PAH\_C.XPT**



First Release: January 2008  
Last Revised: N/A

# NHANES 2003–2004 Data Documentation

## Laboratory Assessment: Lab 31PAH - Polyaromatic Hydrocarbons (PAHs)

Years of Coverage: 2003–2004

First Published: January 2008

Last Revised: N/A

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### Component Description

#### Urinary Polycyclic Aromatic Hydrocarbons (PAHs)

PAHs constitute a group of chemicals which are formed during the incomplete combustion of coal, oil and gas, garbage, and other organic substances. These compounds require metabolic activation prior to their interactions with cellular macromolecules. PAHs are ubiquitous; thus, exposure to them is widespread. In general, people are exposed to mixtures of PAHs, the sources of which include vehicle exhausts, asphalt roads, coal, coal tar, wild fires, agricultural burning, charbroiled foods, and hazardous waste sites. PAHs enter the body quickly and easily by all routes of exposure and are readily and predominantly metabolized to hydroxylated metabolites as well as glucuronide metabolites. These metabolites are excellent indicators of exposure to the parent PAHs. Although background level ranges of PAHs in air and water are known, the equivalent metabolite background levels in humans are not known. Because of increased epidemiologic data relating PAH exposure to cancer incidence, biomonitoring PAH metabolites in humans is very important.

### Eligible Sample

Participants aged 6 years and older who met the subsample requirements.

### Description of Laboratory Methodology

The specific analytes measured in this method are monohydroxy-PAH (OH-PAH). The procedure involves enzymatic hydrolysis of urine, extraction, derivatization and analysis using capillary gas chromatography combined with high resolution mass spectrometry (GC-HRMS) (1, 2). This method uses isotope dilution with carbon-13 labeled internal standards. Ions from each analyte and each carbon-13 labeled internal standard are monitored, and the abundances of each ion are measured. The ratios of these ions are used as criteria for evaluating the data. By evaluating these analytes in urine, a measurement of the body burden from PAH exposure is obtained.

## **Laboratory Quality Control and Monitoring**

Urine specimens are processed, stored, and shipped to the Division of Environmental Health Laboratory Sciences, National Center for Environmental Health, Centers for Disease Control and Prevention for analysis.

Detailed specimen collection and processing instructions are discussed in the NHANES Laboratory/Medical Technologists Procedures Manual (LPM). Vials are stored under appropriate frozen ( $-20^{\circ}\text{C}$ ) conditions until they are shipped to National Center for Environmental Health for testing.

### **Mobile Examination Centers (MECs)**

Laboratory team performance is monitored using several techniques. NCHS and contract consultants use a structured quality assurance evaluation during unscheduled visits to evaluate both the quality of the laboratory work and the quality-control procedures. Each laboratory staff person is observed for equipment operation, specimen collection and preparation; testing procedures and constructive feedback are given to each staff. Formal retraining sessions are conducted annually to ensure that required skill levels were maintained.

The NHANES QA/QC protocols meet the 1988 Clinical Laboratory Improvement Act mandates. Detailed QA/QC instructions are discussed in the NHANES LPM.

### **Analytical Laboratories**

NHANES uses several methods to monitor the quality of the analyses performed by the laboratories.

NCEH developed and distributed a quality control protocol for all the laboratories which outlined the Westgard rules used when running NHANES specimens. Summary statistics for each control pool, QC graphs, and any special considerations are submitted to NCHS. NCHS reviewed the data for trends or shifts. The laboratories are required to explain any identified areas of concern.

All QC procedures recommended by the manufacturers were followed. Reported results for all assays meet the Division of Laboratory Science's quality control and quality assurance performance criteria for accuracy and precision (similar to specifications outlined by Westgard 1981).

## Analytic Notes

### Subsample weights

Measures of urinary PAHs were measured in a one third subsample of persons 6 years and over. Special sample weights are required to analyze these data properly. Specific sample weights for this subsample are included in this data file and should be used when analyzing these data.

### Variance estimation

The analysis of NHANES 2003-2004 laboratory data must be conducted with the key survey design and basic demographic variables. The NHANES 2003-2004 Demographic Data File contains demographic and sample design variables. The recommended procedure for variance estimation requires use of stratum and PSU variables (SDMVSTRA and SDMVPSU, respectively) in the demographic data file.

### Links to NHANES Data Files

This laboratory data file can be linked to the other NHANES 2003-2004 data files using the unique survey participant identifier SEQN.

### Detection Limits

The detection limits were constant for all of the analytes in the data set. Two variables are provided for each of these analytes. The variable named URD\_\_\_LC indicates whether the result was below the limit of detection. There are two values: "0" and "1". "0" means that the result was at or above the limit of detection. "1" indicates that the result was below the limit of detection. The other variable named URX\_\_\_ provides the analytic result for that analyte. In cases, where the result was below the limit of detection, the value for that variable is the detection limit divided by the square root of two.

Table 1 contains the detection limits(LLOD)for these analytes:

Variable	Analyte	Detection limit (LLOD)
URXP01	1-naphthol	46.7
URXP02	2-naphthol	31.1
URXP03	3-fluorene	5
URXP04	2-fluorene	5

URXP05	3-phenanthrene	5
URXP06	1-phenanthrene	5
URXP07	2-phenanthrene	5
URXP08	1-benzo[c] phenanthrene	5
URXP10	1-pyrene	5
URXP11	2-benzo[c] phenanthrene	4
URXP12	1-benzo[a] anthracene	5
URXP13	6-chrysene	5
URXP14	3-benzo[c] phenanthrene	5
URXP15	3-chrysene	5.5
URXP16	3-benz[a] anthracene	10.5
URXP17	9-fluorene	5
URXP19	4-phenanthrene	5
URXP20	1-chrysene	5
URXP21	2-chrysene	5
URXP22	4-chrysene	5
URXP24	3-benzo(a)pyrene	5

Please refer to the Analytic Guidelines for further details on the use of sample weights and other analytic issues.

## References

1. Li Z, Romanoff LC, Trinidad D, Hussain N, Porter EN, Jones RS, Patterson Jr DG, Sjodin A. 2006. Measurement of Urinary Mono-Hydroxylated Polycyclic Aromatic Hydrocarbons Using Automated Liquid-Liquid Extraction and Isotope Dilution Gas Chromatography/High Resolution Mass Spectrometry. *Anal Chem* 78:5744-5751.
2. Romanoff LC, Li Z, Young KJ, Blakely NC, Patterson DG, Jr., Sandau CD. 2006. Automated Solid-Phase Extraction Method for Measuring Urinary Polycyclic Aromatic Hydrocarbon Metabolites in Human Biomonitoring using Isotope-Dilution Gas Chromatography High-Resolution Mass Spectrometry. *J*

Chromatogr B Analyt Technol Biomed Life Sci 835:47-54.

## Locator Fields

**Title:** Lab 31PAH - Polyaromatic Hydrocarbons

**Contact Number:** 1-866-441-NCHS

**Years of Content:** 2003–2004

**First Published:** January 2008

**Revised:** N/A

**Access Constraints:** None

**Use Constraints:** None

**Geographic Coverage:** National

**Subject:** Polyaromatic Hydrocarbons

**Record Source:** NHANES 2003–2004

**Survey Methodology:** NHANES 2003–2004 is a stratified multistage probability sample of the civilian non-institutionalized population of the U.S.

**Medium:** NHANES Web site; SAS transport files

**National Health and Nutrition Examination Survey  
Codebook for Data Production (2003-2004)**

**Urinary Polycyclic Aromatic Hydrocarbons (L31PAH\_C)  
Person Level Data**

First Published: January 2008

Last Revised: N/A





<b>SEQN</b>	<b>Target</b>
	B(6 Yrs. to 150 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	Respondent sequence number
<b>English Text:</b> Respondent sequence number.	
<b>English Instructions:</b>	

<b>WTSB2YR</b>	<b>Target</b>
	B(6 Yrs. to 150 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	Two-year MEC weights of subsample B
<b>English Text:</b> Two-year MEC weights of subsample B	
<b>English Instructions:</b>	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 435025.30254	Range of Values	2697	2697	
.	Missing	0	2697	

<b>URXP01</b>	<b>Target</b>
	B(6 Yrs. to 150 Yrs.)
<b>Hard Edits</b>	<b>SAS Label</b>
	1-naphthol (ng/L)
<b>English Text:</b> 1-naphthol (ng/L)	
<b>English Instructions:</b>	

Code or Value	Description	Count	Cumulative	Skip to Item
33 to 733192.9	Range of Values	2595	2595	
.	Missing	102	2697	

<b>URDP01LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	1-naphthol comment code			
<b>English Text:</b> 1-naphthol comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	2593	2593	
1	Below lower detection limit	2	2595	
.	Missing	102	2697	

<b>URXP02</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	2-naphthol (ng/L)			
<b>English Text:</b> 2-naphthol(ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
71 to 345240.8	Range of Values	2575	2575	
.	Missing	122	2697	

<b>URDP02LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	2-naphthol comment code			
<b>English Text:</b> 2-naphthol comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	2575	2575	
1	Below lower detection limit	0	2575	
.	Missing	122	2697	

<b>URXP03</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	3-fluorene (ng/L)			
<b>English Text:</b> 3-fluorene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 7006.6	Range of Values	2502	2502	
.	Missing	195	2697	

<b>URDP03LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	3-fluorene comment code			
<b>English Text:</b> 3-fluorene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	2496	2496	
1	Below lower detection limit	6	2502	
.	Missing	195	2697	

<b>URXP04</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	2-fluorene (ng/L)			
<b>English Text:</b> 2-fluorene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
10 to 9987.7	Range of Values	2521	2521	
.	Missing	176	2697	

<b>URDP04LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	2-fluorene comment code			
<b>English Text:</b> 2-fluorene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	2521	2521	
1	Below lower detection limit	0	2521	
.	Missing	176	2697	

<b>URXP05</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	3-phenanthrene (ng/L)			
<b>English Text:</b> 3-phenanthrene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 21153.2	Range of Values	2426	2426	
.	Missing	271	2697	

<b>URDP05LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	3-phenanthrene comment code			
<b>English Text:</b> 3-phenanthrene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	2420	2420	
1	Below lower detection limit	6	2426	
.	Missing	271	2697	

<b>URXP06</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	1-phenanthrene (ng/L)			
<b>English Text:</b> 1-phenanthrene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 8826.3	Range of Values	2496	2496	
.	Missing	201	2697	

<b>URDP06LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	1-phenanthrene comment code			
<b>English Text:</b> 1-phenanthrene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	2495	2495	
1	Below lower detection limit	1	2496	
.	Missing	201	2697	

<b>URXP07</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	2-phenanthrene (ng/L)			
<b>English Text:</b> 2-phenanthrene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 5877.4	Range of Values	2512	2512	
.	Missing	185	2697	

<b>URDP07LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	2-phenanthrene comment code			
<b>English Text:</b> 2-phenanthrene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	2481	2481	
1	Below lower detection limit	31	2512	
.	Missing	185	2697	

<b>URXP08</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	1-benzo[c] phenanthrene (ng/L)			
<b>English Text:</b> 1-benzo[c] phenanthrene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 267.7	Range of Values	2277	2277	
.	Missing	420	2697	



<b>URDP08LC</b>		<b>Target</b>		
		B(6 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>		<b>SAS Label</b>		
		1-benzo[c] phenanthrene comment code		
<b>English Text:</b> 1-benzo[c] phenanthrene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	240	240	
1	Below lower detection limit	2037	2277	
.	Missing	420	2697	

<b>URXP10</b>		<b>Target</b>		
		B(6 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>		<b>SAS Label</b>		
		1-pyrene (ng/L)		
<b>English Text:</b> 1-pyrene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 4354	Range of Values	2515	2515	
.	Missing	182	2697	

<b>URDP10LC</b>		<b>Target</b>		
		B(6 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>		<b>SAS Label</b>		
		1-pyrene comment code		
<b>English Text:</b> 1-pyrene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	2499	2499	
1	Below lower detection limit	16	2515	
.	Missing	182	2697	

<b>URXP11</b>		<b>Target</b>		
		B(6 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>		<b>SAS Label</b>		
		2-benzo[c] phenanthrene (ng/L)		
<b>English Text:</b> 2-benzo[c] phenanthrene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
2.8 to 77.1	Range of Values	2267	2267	
.	Missing	430	2697	

<b>URDP11LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	2-benzo[c] phenanthrene comment code			
<b>English Text:</b> 2-benzo[c] phenanthrene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	169	169	
1	Below lower detection limit	2098	2267	
.	Missing	430	2697	

<b>URXP12</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	1-benzo[a] anthracene (ng/L)			
<b>English Text:</b> 1-benzo[a] anthracene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 105.4	Range of Values	2295	2295	
.	Missing	402	2697	

<b>URDP12LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	1-benzo[a] anthracene comment code			
<b>English Text:</b> 1-benzo[a] anthracene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	195	195	
1	Below lower detection limit	2100	2295	
.	Missing	402	2697	

<b>URXP13</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	6-chrysene (ng/L)			
<b>English Text:</b> 6-chrysene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 155.6	Range of Values	2315	2315	
.	Missing	382	2697	

<b>URDP13LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	6-chrysene comment code			
<b>English Text:</b> 6-chrysene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	308	308	
1	Below lower detection limit	2007	2315	
.	Missing	382	2697	

<b>URXP14</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	3-benzo[c] phenanthrene (ng/L)			
<b>English Text:</b> 3-benzo[c] phenanthrene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 145.5	Range of Values	2307	2307	
.	Missing	390	2697	

<b>URDP14LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	3-benzo[c] phenanthrene comment code			
<b>English Text:</b> 3-benzo[c] phenanthrene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	189	189	
1	Below lower detection limit	2118	2307	
.	Missing	390	2697	

<b>URXP15</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	3-chrysene (ng/L)			
<b>English Text:</b> 3-chrysene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.9 to 124.4	Range of Values	2267	2267	
.	Missing	430	2697	

<b>URDP15LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	3-chrysene comment code			
<b>English Text:</b> 3-chrysene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	155	155	
1	Below lower detection limit	2112	2267	
.	Missing	430	2697	

<b>URXP16</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	3-benz[a] anthracene (ng/L)			
<b>English Text:</b> 3-benz[a] anthracene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
7.4 to 347.6	Range of Values	2231	2231	
.	Missing	466	2697	

<b>URDP16LC</b>		<b>Target</b>		
		B(6 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>		<b>SAS Label</b>		
		3-benz[a] anthracene comment code		
<b>English Text:</b> 3-benz[a] anthracene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	170	170	
1	Below lower detection limit	2061	2231	
.	Missing	466	2697	

<b>URXP17</b>		<b>Target</b>		
		B(6 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>		<b>SAS Label</b>		
		9-fluorene (ng/L)		
<b>English Text:</b> 9-fluorene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
9.2 to 23952.8	Range of Values	2504	2504	
.	Missing	193	2697	



<b>URDP17LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	9-fluorene comment code			
<b>English Text:</b> 9-fluorene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	2504	2504	
1	Below lower detection limit	0	2504	
.	Missing	193	2697	

<b>URXP19</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	4-phenanthrene (ng/L)			
<b>English Text:</b> 4-phenanthrene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 880.4	Range of Values	2443	2443	
.	Missing	254	2697	

<b>URDP19LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	4-phenanthrene comment code			
<b>English Text:</b> 4-phenanthrene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	2230	2230	
1	Below lower detection limit	213	2443	
.	Missing	254	2697	

<b>URXP20</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	1-chrysene (ng/L)			
<b>English Text:</b> 1-chrysene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 477.4	Range of Values	2259	2259	
.	Missing	438	2697	

<b>URDP20LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	1-chrysene comment code			
<b>English Text:</b> 1-chrysene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	634	634	
1	Below lower detection limit	1625	2259	
.	Missing	438	2697	

<b>URXP21</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	2-chrysene (ng/L)			
<b>English Text:</b> 2-chrysene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 142.1	Range of Values	2241	2241	
.	Missing	456	2697	

<b>URDP21LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	2-chrysene comment code			
<b>English Text:</b> 2-chrysene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	68	68	
1	Below lower detection limit	2173	2241	
.	Missing	456	2697	

<b>URXP22</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	4-chrysene (ng/L)			
<b>English Text:</b> 4-chrysene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 131.6	Range of Values	2325	2325	
.	Missing	372	2697	

<b>URDP22LC</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	4-chrysene comment code			
<b>English Text:</b> 4-chrysene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	183	183	
1	Below lower detection limit	2142	2325	
.	Missing	372	2697	

<b>URXP24</b>	<b>Target</b>			
	B(6 Yrs. to 150 Yrs.)			
<b>Hard Edits</b>	<b>SAS Label</b>			
	3-benzo(a) pyrene (ng/L)			
<b>English Text:</b> 3-benzo(a) pyrene (ng/L)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
3.5 to 822.5	Range of Values	2245	2245	
.	Missing	452	2697	

<b>URDP24LC</b>		<b>Target</b>		
		B(6 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>		<b>SAS Label</b>		
		3-benzo(a) pyrene comment code		
<b>English Text:</b> 3-benzo(a) pyrene comment code				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
0	At or above the detection limit	301	301	
1	Below lower detection limit	1944	2245	
.	Missing	452	2697	

<b>URXUCR</b>		<b>Target</b>		
		B(6 Yrs. to 150 Yrs.)		
<b>Hard Edits</b>		<b>SAS Label</b>		
		Creatinine, urine (mg/dL)		
<b>English Text:</b> Creatinine, urine (mg/dL)				
<b>English Instructions:</b>				
<b>Code or Value</b>	<b>Description</b>	<b>Count</b>	<b>Cumulative</b>	<b>Skip to Item</b>
9 to 882	Range of Values	2623	2623	
.	Missing	74	2697	