



Effective Date:
Monday, July 08, 2024

Test Updates

Modified May 16, 2024:

Test 0541B: Specimen Requirements Volume updated.

In our continuing effort to provide you with the highest quality toxicology laboratory services available, we have compiled important changes regarding a number of tests we perform. Listed below are the types of changes that may be included in this notification, effective Monday, July 08, 2024

Test Changes - Tests that have had changes to the Test Name, Turnaround Time (TAT), Method/CPT Code, Stability, Units of Measurement, Reference Comments, Analytes (Scope of Analysis changes, Interface Map), or Specimen Requirements.

Discontinued Tests - Tests being discontinued with alternate testing suggestions.

Please use this information to update your computer systems/records. These changes are important to ensure standardization of our mutual laboratory databases.

If you have any questions about the information contained in this notification, please call our Client Support Department at (866) 522-2206. Thank you for your continued support of NMS Labs and your assistance in implementing these changes.

The CPT Codes provided in this document are based on AMA guidelines and are for informational purposes only. NMS Labs does not assume responsibility for billing errors due to reliance on the CPT Codes listed in this document.



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Test	Test Name	Test Name	TAT	Method / CPT Code	Specimen Req.	Stability	Analytes	Units	Reference Comments	Discontinue
2358U	1-Hydroxypyrene, Urine						•			
0785B	Aromatic Solvents Exposure Panel, Blood							•	•	
0468U	Arsenic, Total Inorganic, Urine						•			
10237U	Arsenic, Total Inorganic, Urine (CSA) [CMM-013-T]						•			
0541B	Benzene, Blood			•	•			•	•	
0541TI	Benzene, Tissue								•	
0995U	Carbon Disulfide Exposure (TTCA), Urine						•			
10330UH	Copper, 24 Hour Urine (CSA) [5330]				•	•				
1600B	Diethylpropion, Blood				•					
1600U	Diethylpropion, Urine				•					
2063B	Etomidate, Blood				•					
6303B	Firefighter Core Baseline Profile, Blood							•	•	
2220U	Haloperidol, Urine				•	•				
2321B	Hydrocarbon and Oxygenated Volatiles Panel, Blood							•	•	
2321FL	Hydrocarbon and Oxygenated Volatiles Panel, Fluid								•	
2321TI	Hydrocarbon and Oxygenated Volatiles Panel, Tissue								•	
2411TI	Inhalants Panel, Solvents, Tissue								•	
2672B	Mercury Proficiency, Blood					•				
2672SP	Mercury Proficiency, Serum/Plasma					•				
2670B	Mercury, Blood					•				
2670SP	Mercury, Serum/Plasma					•				
2697B	Metals Acute Poisoning Panel, Blood (CSA)					•				
2693B	Metals/Metalloids Acute Poisoning Panel, Blood					•				
2693SP	Metals/Metalloids Acute Poisoning Panel, Serum/Plasma					•				
2661B	Metals/Metalloids Panel 1, Blood					•				
2661SP	Metals/Metalloids Panel 1, Serum/Plasma					•				
2663B	Metals/Metalloids Panel 3, Blood					•				
2663SP	Metals/Metalloids Panel 3, Serum/Plasma					•				



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Test	Test Name	Test Name	TAT	Method / CPT Code	Specimen Req.	Stability	Analytes	Units	Reference Comments	Discontinue
4472U	Thiosulfate, Urine						•			
10097U	Total, Inorganic Arsenic, Urine (CSA)	•					•			
4778U	Vinyl Chloride Metabolite, Urine						•			
2415B	Volatile and Halocarbon Intoxicants, Blood							•	•	
2415FL	Volatile and Halocarbon Intoxicants, Fluid								•	
2415TI	Volatile and Halocarbon Intoxicants, Tissue								•	



Test Updates

Test Changes

2358U 1-Hydroxypyrene, Urine

Summary of Changes: Interface Map was changed for 1-Hydroxypyrene and 1-Hydroxypyrene (Creatinine corrected).

Analyte Name	Interface Map	Units	Reference Comment
1-Hydroxypyrene	1HPYRE	ng/mL	The ACGIH BEI for exposure to polycyclic aromatic hydrocarbons (PAHs) is 2.5 ng/mL of 1-Hydroxypyrene in a urine sample collected at the end of shift end of workweek. Note: The BEI can be adjusted for the known Pyrene to Benzo(a)pyrene ratio in the exposure mixture; otherwise, the default value of 2.5 ng/mL should be used.
1-Hydroxypyrene (Creatinine corrected)	1HPYRECR	mcg/g Creat	

0785B Aromatic Solvents Exposure Panel, Blood

Summary of Changes: Reference Comment was changed for Benzene. Units were changed for Benzene.

Scope of Analysis: Headspace GC (84600): Benzene, Toluene, o-Xylene, p-Xylene, m-Xylene, Xylenes
Method (CPT Code) (o,m,p) - Total, Ethylbenzene, Styrene

Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	ng/mL	General U.S. population from CDC-NHANES (2017-2018) (n=2840) is typically less than 0.263 ng/mL (95% CI, 0.207-0.319 ng/mL) (95th percentile). According to CDC-NHANES (2015-2016) blood benzene concentrations are generally less than 0.642 ng/mL (95th percentile) in smokers and less than 0.250 ng/mL in non-smokers. Following exposure to 25 ppm in air for 2 hours, the blood benzene concentration is approximately 200 ng/mL.

10237U Arsenic, Total Inorganic, Urine (CSA) [CMM-013-T]

Summary of Changes: Interface Map was changed for Arsenic, Total Inorganic and Arsenic, Total Inorganic (Creatinine corrected).

Analyte Name	Interface Map	Units	Reference Comment
Arsenic, Total Inorganic	ARSTOIN	mcg/L	The U.S. general population (NHANES 2011-2016) of total inorganic arsenic is usually less than 20 mcg/L. The ACGIH Biological Exposure Index (BEI) for monitoring arsenic (elemental and soluble inorganic analytes) is 35 mcg/L of total inorganic arsenic in an end of workweek urine specimen.



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Analyte Name	Interface Map	Units	Reference Comment
Arsenic, Total Inorganic (Creatinine corrected)	ARSTOICR	mcg/g Creat	

0468U Arsenic, Total Inorganic, Urine

Summary of Changes: Interface Map was changed for Arsenic, Total Inorganic and Arsenic, Total Inorganic (Creatinine corrected).

Analyte Name	Interface Map	Units	Reference Comment
Arsenic, Total Inorganic	ARSTOIN	mcg/L	The U.S. general population (NHANES 2011-2016) of total inorganic arsenic is usually less than 20 mcg/L. The ACGIH Biological Exposure Index (BEI) for monitoring arsenic (elemental and soluble inorganic analytes) is 35 mcg/L of total inorganic arsenic in an end of workweek urine specimen.
Arsenic, Total Inorganic (Creatinine corrected)	ARSTOICR	mcg/g Creat	

0541B Benzene, Blood

Summary of Changes: Specimen Requirements (Requested Volume) were changed.
Reference Comment was changed for Benzene.
Units were changed for Benzene.
Methods/CPT Codes were changed [Headspace GCMS (84600)]

- Requested Volume: 5 mL Blood
- Transport Temperature: Refrigerated
- Sample Container: Gray top tube (Sodium Fluoride / Potassium Oxalate)
- Light Protection: Not Required
- Special Handling: None
- Rejection Criteria: Received Room Temperature.
- Scope of Analysis: Headspace GCMS (84600): Benzene
- Method (CPT Code)



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Test Changes

Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	ng/mL	<p>General U.S. population from CDC-NHANES (2017-2018) (n=2840) is typically less than 0.263 ng/mL (95% CI, 0.207-0.319 ng/mL) (95th percentile). According to CDC-NHANES (2015-2016) blood benzene concentrations are generally less than 0.642 ng/mL (95th percentile) in smokers and less than 0.250 ng/mL in non-smokers.</p> <p>Following exposure to 25 ppm in air for 2 hours, the blood benzene concentration is approximately 200 ng/mL.</p>

0541TI Benzene, Tissue

Summary of Changes: Reference Comment was changed for Benzene.

Scope of Analysis: Headspace GC (84600): Benzene
Method (CPT Code)

Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	mcg/g	[Reference comment removed]

0995U Carbon Disulfide Exposure (TTCA), Urine

Summary of Changes: Interface Map was changed for 2-Thiothiazolidine-4-Carboxylic Acid and 2-Thiothiazolidine-4-Carboxylic Acid (Creatinine corrected).

Analyte Name	Interface Map	Units	Reference Comment
2-Thiothiazolidine-4-Carboxylic Acid	1THZ4CBXY	mg/L	
2-Thiothiazolidine-4-Carboxylic Acid (Creatinine corrected)	1THZ4BCR	mg/g Creat	Biological Exposure Index (ACGIH): Following workplace exposure to Carbon Disulfide: 0.5 mg TTCA/g Creatinine measured in a urine specimen collected at end of shift.

10330UH Copper, 24 Hour Urine (CSA) [5330]

Summary of Changes: Specimen Requirements (Special Handling) were changed.
Stability was changed.



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Test Changes

Requested Volume: 2 mL 24 Hour Urine
Transport Temperature: Refrigerated
Sample Container: Plastic container (Acid washed or Trace metal-free)
Light Protection: Not Required
Special Handling: Unpreserved urine should be refrigerated immediately and analyzed within 1 week of collection. Acceptable preservatives include: Trace Metal Free Hydrochloric Acid or Nitric Acid (0.1 mL of 12M acid/10 mL urine). Avoid exposure to gadolinium-based contrast media for 48 hours prior to sample collection.
Rejection Criteria: None
Stability: Room Temperature: 7 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 12 month(s)

1600B Diethylpropion, Blood

Summary of Changes: Specimen Requirements (Requested Volume) were changed.

Requested Volume: 6 mL Blood
Transport Temperature: Refrigerated
Sample Container: NMS Labs has no experimental or literature-based data regarding the choice of specific specimen collection containers for this test.
Light Protection: Not Required
Special Handling: None
Rejection Criteria: None

1600U Diethylpropion, Urine

Summary of Changes: Specimen Requirements (Requested Volume) were changed.

Requested Volume: 6 mL Urine
Transport Temperature: Refrigerated
Sample Container: Plastic container (preservative-free)
Light Protection: Not Required
Special Handling: None
Rejection Criteria: None

2063B Etomidate, Blood

Summary of Changes: Specimen Requirements (Requested Volume) were changed.



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Test Changes

Requested Volume: 4 mL Blood
Transport Temperature: Refrigerated
Sample Container: Gray top tube (Sodium Fluoride / Potassium Oxalate)
Light Protection: Not Required
Special Handling: None
Rejection Criteria: None

6303B Firefighter Core Baseline Profile, Blood

Summary of Changes: Reference Comment was changed for Benzene.
Units were changed for Benzene.

Scope of Analysis: ICP/MS (83655): Lead
Method (CPT Code) H (84202): ZPP, ZPP (OSHA Converted Units)
Headspace GC (84600): Benzene, Ethylbenzene, Styrene, Toluene, o-Xylene, p-Xylene, m-Xylene, Xylenes (o,m,p) - Total, n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, n-Butanol, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Diethyl Ether, Methyl Tertiary Butyl Ether

Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	ng/mL	General U.S. population from CDC-NHANES (2017-2018) (n=2840) is typically less than 0.263 ng/mL (95% CI, 0.207-0.319 ng/mL) (95th percentile). According to CDC-NHANES (2015-2016) blood benzene concentrations are generally less than 0.642 ng/mL (95th percentile) in smokers and less than 0.250 ng/mL in non-smokers. Following exposure to 25 ppm in air for 2 hours, the blood benzene concentration is approximately 200 ng/mL.

2220U Haloperidol, Urine

Summary of Changes: Specimen Requirements (Requested Volume) were changed.
Stability was changed.

Requested Volume: 1 mL Urine
Transport Temperature: Refrigerated
Sample Container: Plastic container (preservative-free)
Light Protection: Not Required
Special Handling: None
Rejection Criteria: None
Stability: Room Temperature: 1 month(s)
Refrigerated: 1 month(s)
Frozen (-20 °C): 1 month(s)



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Test Changes

2321B Hydrocarbon and Oxygenated Volatiles Panel, Blood

Summary of Changes: Reference Comment was changed for Benzene.
Units were changed for Benzene.

Scope of Analysis: Headspace GC (84600): Benzene, Ethylbenzene, Styrene, Toluene, o-Xylene, p-Xylene, m-Xylene, Xylenes (o,m,p) - Total, n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, n-Butanol, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Diethyl Ether, Methyl Tertiary Butyl Ether, Sec-Butanol, Tert-Butanol, Iso-Amyl Alcohol, Isobutanol, Tetrahydrofuran

Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	ng/mL	General U.S. population from CDC-NHANES (2017-2018) (n=2840) is typically less than 0.263 ng/mL (95% CI, 0.207-0.319 ng/mL) (95th percentile). According to CDC-NHANES (2015-2016) blood benzene concentrations are generally less than 0.642 ng/mL (95th percentile) in smokers and less than 0.250 ng/mL in non-smokers. Following exposure to 25 ppm in air for 2 hours, the blood benzene concentration is approximately 200 ng/mL.

2321FL Hydrocarbon and Oxygenated Volatiles Panel, Fluid

Summary of Changes: Reference Comment was changed for Benzene.

Scope of Analysis: Headspace GC (84600): Isobutanol, Benzene, Ethylbenzene, Styrene, Toluene, o-Xylene, p-Xylene, m-Xylene, Xylenes (o,m,p) - Total, n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, n-Butanol, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Diethyl Ether, Methyl Tertiary Butyl Ether, Sec-Butanol, Tert-Butanol, Iso-Amyl Alcohol, Tetrahydrofuran

Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	mcg/mL	[Reference comment removed]

2321TI Hydrocarbon and Oxygenated Volatiles Panel, Tissue

Summary of Changes: Reference Comment was changed for Benzene.

Scope of Analysis: Headspace GC (84600): Benzene, Ethylbenzene, Styrene, Toluene, Xylenes (o,m,p), n-Heptane, n-Hexane, Methylpentanes (2- and 3- Isomers), Pentane, n-Butanol, Ethanol, Isopropanol, n-Propanol, Methanol, Acetaldehyde, Acetone, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl n-Butyl Ketone, Diethyl Ether, Methyl Tertiary Butyl Ether



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Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	mcg/g	[Reference comment removed]

2411TI Inhalants Panel, Solvents, Tissue

Summary of Changes: Reference Comment was changed for Benzene.

Scope of Analysis: Headspace GC (84600): Acetone, n-Butanol, Amyl Alcohol, Isobutanol, Iso-Amyl Alcohol, Benzene, Ethanol, Ethyl Ether, Heptane, Hexane, Isopropanol, Methanol, Methyl Ethyl Ketone, Pentane, Styrene, Toluene, o-Xylene, m-Xylene, p-Xylene

Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	mcg/g	[Reference comment removed]

2672B Mercury Proficiency, Blood

Summary of Changes: Stability was changed.

Stability: Room Temperature: 14 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 24 month(s)

2672SP Mercury Proficiency, Serum/Plasma

Summary of Changes: Stability was changed.

Stability: Room Temperature: 14 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 15 month(s)

2670B Mercury, Blood

Summary of Changes: Stability was changed.

Stability: Room Temperature: 14 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 24 month(s)

2670SP Mercury, Serum/Plasma

Summary of Changes: Stability was changed.

Stability: Room Temperature: 14 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 15 month(s)

2697B Metals Acute Poisoning Panel, Blood (CSA)

Summary of Changes: Stability was changed.



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Test Changes

Stability: Room Temperature: 14 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 30 day(s)

2693B Metals/Metalloids Acute Poisoning Panel, Blood

Summary of Changes: Stability was changed.

Stability: Room Temperature: 14 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 30 day(s)

2693SP Metals/Metalloids Acute Poisoning Panel, Serum/Plasma

Summary of Changes: Stability was changed.

Stability: Room Temperature: 14 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 30 day(s)

2661B Metals/Metalloids Panel 1, Blood

Summary of Changes: Stability was changed.

Stability: Room Temperature: 14 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 30 day(s)

2661SP Metals/Metalloids Panel 1, Serum/Plasma

Summary of Changes: Stability was changed.

Stability: Room Temperature: 14 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 30 day(s)

2663B Metals/Metalloids Panel 3, Blood

Summary of Changes: Stability was changed.

Stability: Room Temperature: Undetermined
Refrigerated: 30 day(s)
Frozen (-20 °C): Undetermined

2663SP Metals/Metalloids Panel 3, Serum/Plasma

Summary of Changes: Stability was changed.

Stability: Room Temperature: 14 day(s)
Refrigerated: 30 day(s)
Frozen (-20 °C): 30 day(s)



Test Updates

Test Changes

4472U Thiosulfate, Urine

Summary of Changes: Interface Map was changed for Thiosulfate and Thiosulfate (Creatinine corrected).

Analyte Name	Interface Map	Units	Reference Comment
Thiosulfate	THSULF	mcg/mL	Generally less than 9.2 mcg/mL (based on a median creatinine concentration of 1.18 g/L).
Thiosulfate (Creatinine corrected)	THSULFCR	mg/g Creat	Generally less than 7.8 mg/g creatinine

10097U Total, Inorganic Arsenic, Urine (CSA)

Summary of Changes: Test Name was changed.
Interface Map was changed for Arsenic, Total Inorganic and Arsenic, Total Inorganic (Creatinine corrected).

Analyte Name	Interface Map	Units	Reference Comment
Arsenic, Total Inorganic	ARSTOIN	mcg/L	The U.S. general population (NHANES 2011-2016) of total inorganic arsenic is usually less than 20 mcg/L. The ACGIH Biological Exposure Index (BEI) for monitoring arsenic (elemental and soluble inorganic analytes) is 35 mcg/L of total inorganic arsenic in an end of workweek urine specimen.
Arsenic, Total Inorganic (Creatinine corrected)	ARSTOICR	mcg/g Creat	

4778U Vinyl Chloride Metabolite, Urine

Summary of Changes: Interface Map was changed for Thiodiglycolic Acid and Thiodiglycolic Acid (Creatinine corrected).

Analyte Name	Interface Map	Units	Reference Comment
Thiodiglycolic Acid	TDGLYC	mcg/mL	



Test Updates

Test Changes

Analyte Name	Interface Map	Units	Reference Comment
Thiodiglycolic Acid (Creatinine corrected)	TDGLYCCR	mg/g Creat	Thiodiglycolic Acid (TDGH) is a normal urinary constituent and it is also a metabolite of Vinyl Chloride and many other chemicals including Ethanol. Some unexposed individuals had urinary levels of less than 2 mcg/mL (<2 mg/g Creatinine, assuming a 1,000 mg Creatinine/mL). Since urinary concentrations of Thiodiglycolic Acid may not increase significantly after low environmental exposure to Vinyl Chloride (<10 ppm), in addition to variation in basal concentrations in unexposed individuals, urinary monitoring may not be a good indicator of low dose exposure to Vinyl Chloride.

2415B Volatile and Halocarbon Intoxicants, Blood

Summary of Changes: Reference Comment was changed for Benzene.
Units were changed for Benzene.

Scope of Analysis: Headspace GC (82441): Benzene, Toluene, o-Xylene, p-Xylene, m-Xylene, Xylenes (o,m,p) - Total, Acetone, Methyl Ethyl Ketone, Iso-Amyl Alcohol, Isobutanol, n-Butanol, Ethyl Ether, Chloromethane, Dichloromethane, Chloroform, Carbon Tetrachloride, Chloroethane, Dichloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, Trichlorofluoromethane, Dichlorodifluoromethane, Trichlorotrifluoroethane, Methanol, Ethanol, Isopropanol

Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	ng/mL	General U.S. population from CDC-NHANES (2017-2018) (n=2840) is typically less than 0.263 ng/mL (95% CI, 0.207-0.319 ng/mL) (95th percentile). According to CDC-NHANES (2015-2016) blood benzene concentrations are generally less than 0.642 ng/mL (95th percentile) in smokers and less than 0.250 ng/mL in non-smokers. Following exposure to 25 ppm in air for 2 hours, the blood benzene concentration is approximately 200 ng/mL.

2415FL Volatile and Halocarbon Intoxicants, Fluid

Summary of Changes: Reference Comment was changed for Benzene.

Scope of Analysis: Headspace GC (84600): Benzene, Toluene, o-Xylene, p-Xylene, m-Xylene, Xylenes (o,m,p) - Total, Acetone, Methyl Ethyl Ketone, Iso-Amyl Alcohol, Isobutanol, n-Butanol, Ethyl Ether, Chloromethane, Dichloromethane, Chloroform, Carbon Tetrachloride, Chloroethane, Dichloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, Trichlorofluoromethane, Dichlorodifluoromethane, Trichlorotrifluoroethane, Methanol, Ethanol, Isopropanol



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Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	mcg/mL	[Reference comment removed]

2415TI Volatile and Halocarbon Intoxicants, Tissue

Summary of Changes: Reference Comment was changed for Benzene.

Scope of Analysis: Headspace GC (84600): Benzene, Toluene, o-Xylene, p-Xylene, m-Xylene, Xylenes (o,m,p) - Total, Acetone, Methyl Ethyl Ketone, Iso-Amyl Alcohol, Isobutanol, n-Butanol, Ethyl Ether, Chloromethane, Dichloromethane, Chloroform, Carbon Tetrachloride, Chloroethane, Dichloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, Trichlorofluoromethane, Dichlorodifluoromethane, Trichlorotrifluoroethane, Methanol, Ethanol, Isopropanol

Analyte Name	Interface Map	Units	Reference Comment
Benzene	BENZENE	mcg/g	[Reference comment removed]