DEPARTMENT OF THE AIR FORCE
PACIFIC AIR FORCES

10 February 2014

MEMORANDUM FOR RECORD

FROM: 18 AMDS/SGPB

SUBJECT: Amelia Earhart Intermediate and Bob Hope Primary School's Air/Soil Sample Results

1. **Background:** On 6 January and 23 January 2014, Airmen from the Bioenvironmental Engineering (BE) Flight collected and analyzed preliminary screening soil and air samples from the area behind Amelia Earhart Intermediate School (AEIS) and Bob Hope Primary School (BHPS). This sampling event was conducted to ensure Kadena Air Base was not impacted by the potential migration of contaminates from an excavation site approximately 75 meters from the perimeter fence.

2. **Sample Collection/Strategy:** BE collected a total of 13 soil and seven air samples from the area behind AEIS and BHPS. All air samples were collected at approximately 4 feet from the surface to model the breathing zone of the average child attending these schools. Soil samples were collected in accordance with the "Occupational and Environmental Health Site Assessment: Documentation and Data Management Technical Guide". AEIS samples (ten soil and four air) were collected from the interior fence line surrounding the AEIS soccer field. This fence is parallel to the off-base soccer field where the excavated barrels were found. BHPS samples (three soil and three air) were collected from behind the school at the closest location to the excavation site.

Background samples (two soil and two air) were collected approximately 1.2 miles away from the excavation site at Kadena Elementary School. The basis for selecting an appropriate location for background samples included a sufficient distance from the excavation site and similar lawn care and treatment services to those of the AEIS and BHPS fields. The only perceived varying factor between the two sites was due to vehicle emissions from Prefectural Highway 23 and the Okinawa Expressway. BE also collected a blank sample from the room the analysis was performed. All samples were analyzed by a field-portable gas chromatograph and mass spectrometer, specifically a Hazardous Air Pollutants On Site (HAPSITE) Smart with Headspace Sampling System.

3. **Interpretation of Data:** The HAPSITE is capable of identifying and quantifying a wide spectrum of unknown contaminates. The chemical spectrum is generated and matched to the "AMDIS Mass Spectral" library that consist of approximately 750 toxic industrial chemicals, chemical warfare agents, and chemicals the Environmental Protection Agency deems potentially hazardous.

The attached Automated Mass Spectral Deconvolution and Identification System (AMDIS) summary report lists a Net Fit number for each compound detected in the sample. This number outlines the quality or confidence of the spectral match. The Net Fit is based on a scale of 100. Please see table below:

AMDIS Net Fit:	Quality:
70 -79	Good
80-89	Better
>90	Best

Internal standards are chemicals added to the sample to be utilized as a frame of reference to aid in the calculation of the concentration of identified chemicals found in the report. The table below outlines the chemicals utilized for the HAPSITE and Headspace units: (Please note: The stand alone HAPSITE is utilized to analyze air samples; while, the Headspace is an attachment to the HAPSITE that is utilized to analyzed soil and water samples.)

HAPSITE	Headspace
Bromopentafluorobenzene (BPFB)	Bromopentafluorobenzene (BPFB)
1,3,5 Trifluoromenthyl Benzene (Tris)	1,3,5 Trifluoromenthyl Benzene (Tris)
	Chlorobenzene – D5
	1,4 – Dichlorobenzene – D4

All internal standard substances are identified and quantified within the analytical results of the attachment.

4. **Summary:** The analytical results reported for both air and soil samples collected from KES and the Blank were subtracted from the AEIS and BHPS reports. All remaining chemicals identified in the AMDIS report were evaluated to determine their potential origin. Identified chemicals with concentrations were compared to established environmental health standards. In any instance an environmental standard was not available, comparisons were made utilizing U.S. occupational health exposure standards. All concentrations reported from the AMDIS for both AEIS and BHPS were in the parts per billion range (or very low concentrations) and were not at any level that would indicate the presence of an environmental health concern. At this time, BE concludes that no link exists between the excavation site and AEIS and BHPS.

5. If there are any questions or concerns, please feel free to contact the undersigned at Isaiah.Manigault@us.af.mil.

ISAIAH D. MANIGAULT, Maj, USAF, BSC
Flight Commander, Bioenvironmental Engineering

Attachment:
1. AEIS and BHPS Analytical Air/Soil Sample Results
2. KES and Blank (Background) Air/Soil Sample Results

AEIS Air Sample 1

Unknown Identification Report
Date: 01/08/14 Time: 10:30:55
Calibration Method:
/Haps/Method/Volatiles.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of 74 VOC compounds

For detailed information on this method, please refer to the technical report titled "Development and Demonstration of the Performance of Composite Calibration Curves for the Analysis of Volatile Organic Compounds in Air Using the HAPSITE Smart Plus" (MacGregor 2012) prepared by Battelle for USAFSAM.

Data File:
/Haps/Data/Volatiles/VOC_20m_20140108_002.hps
Data Info:

Valid GPS Information Not Available

#1	Sulfur dioxide			
RT=	01:26.0	Net=	82	
#2	n-butane			
RT=	01:29.2	Fit=	94.7	0.448 ppb
#3	Acetone			
RT=	01:39.6	Fit=	90.9	3.278 ppb
#4	Butane			
RT=	01:41.0	Net=	91.0*	
#5	isopropyl alcohol			
RT=	01:42.7	Fit=	54.4	1.677 ppb
#6	Pentane			
RT=	01:46.0	Net=	90.0*	
#7	tert-butyl alcohol			
RT=	01:52.1	Fit=	91.7	0.064 ppb
#8	Methylene Chloride			
RT=	01:54.2	Fit=	98.2	0.156 ppb
#9	Carbon disulfide			
RT=	02:00.5	Fit=	99.9	1.897 ppb
#10	vinyl acetate			

AEIS Air Sample 1

RT=	02:13.2	Fit=	79.3	2.543 ppb
#11	2-Butanone			
RT=	02:13.2	Fit=	89.3	3.171 ppb
#12	Hexane			
RT=	02:21.6	Fit=	88.7	0.040 ppb
#13	ethyl acetate			
RT=	02:30.0	Fit=	93.5	0.017 ppb
#14	chloroform			
RT=	02:35.2	Fit=	96.4	0.072 ppb
#15	Tris_69			
RT=	02:53.0	Fit=	85.4	10.40 ppm
#16	TRIS HAPSITE IS #1			
RT=	02:54.0	Net=	97	
#17	Tris_213			
RT=	02:54.0	Fit=	86.2	10.40 ppm
#18	1,2-dichloroethane			
RT=	02:55.1	Fit=	89.3	0.009 ppb
#19	tetrahydrofuran			
RT=	02:56.1	Fit=	86.8	0.086 ppb
#20	Benzene			
RT=	03:17.1	Fit=	100	0.285 ppb
#21	Carbon Tetrachloride			
RT=	03:22.3	Fit=	99.9	0.123 ppb
#22	Cyclohexane			
RT=	03:26.5	Fit=	97.4	0.001 ppb
#23	2-Butanone, 3-methyl-			
RT=	03:34.0	Net=	77.0*	
#24	Pentanal			
RT=	03:44.0	Net=	90	
#25	1,2-dichloropropane			
RT=	03:49.6	Fit=	88.1	0.005 ppb
#26	bromodichloromethane			
RT=	03:53.7	Fit=	79.5	0.003 ppb
#27	isooctane			
RT=	04:04.1	Fit=	97.3	0.006 ppb
#28	methyl methacrylate			
RT=	04:12.5	Fit=	100	0.332 ppb
#29	2-Propenoic acid, 2-methyl-, methyl e…			
RT=	04:13.0	Net=	88	
#30	Heptane			
RT=	04:16.7	Fit=	82.9	0.007 ppb
#31	Methyl Isobutyl Ketone			
RT=	04:55.4	Fit=	98.4	1.240 ppb
#32	Toluene			
RT=	06:09.9	Fit=	99.9	1.151 ppb
#33	2-Hexanone			
RT=	07:07.4	Fit=	97.3	0.006 ppb

#34	dibromochloromethane			
RT=	07:12.6	Fit=	83.7	0.001 ppb
#35	Furfural			
RT=	08:14.0	Net=	79	
#36	Octane			
RT=	08:49.0	Net=	78	
#37	Acetamide, N,N-dimethyl-			
RT=	09:36.0	Net=	100	
#38	BPFB_98			
RT=	09:45.7	Fit=	91.3	5.350 ppm
#39	BPFB_248			
RT=	09:46.8	Fit=	92.3	5.350 ppm
#40	BPFB_117			
RT=	09:46.8	Fit=	92.3	5.350 ppm
#41	BPFB_167			
RT=	09:46.8	Fit=	93.1	5.350 ppm
#42	BPFB HAPSITE IS # 2			
RT=	09:47.0	Net=	96	
#43	Ethylbenzene			
RT=	10:00.5	Fit=	99.8	0.720 ppb
#44	p-Xylene			
RT=	10:18.0	Net=	97.0*	
#45	m&p-xylene			
RT=	10:18.4	Fit=	99.9	0.679 ppb
#46	Nonane			
RT=	10:31.0	Net=	88.0*	
#47	styrene			
RT=	10:50.8	Fit=	99.4	0.110 ppb
#48	Styrene			
RT=	10:52.0	Net=	94	
#49	p-Xylene			
RT=	11:00.0	Net=	81.0*	
#50	o-xylene			
RT=	11:00.3	Fit=	99.7	0.220 ppb
#51	cumene			
RT=	11:42.2	Fit=	90.9	0.023 ppb
#52	1,3-Cyclohexadiene, 1-methyl-4-(1-met...			
RT=	11:43.0	Net=	93.0*	
#53	.alpha.-Pinene			
RT=	12:17.0	Net=	79.0*	
#54	Camphene			
RT=	12:48.0	Net=	93.0*	
#55	propyl benzene			
RT=	12:56.5	Fit=	22.5	0.132 ppb
#56	4-ethyltoluene			
RT=	13:06.0	Fit=	76.8	0.043 ppb
#57	1,3,5-trimethylbenzene			

RT=	13:06.0	Fit=	89.4	0.046 ppb
#58	Phenol			
RT=	13:14.0	Net=	98	
#59	.alpha.-Pinene			
RT=	13:24.0	Net=	83.0*	
#60	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2...			
RT=	13:31.0	Net=	80.0*	
#61	1,2,4-trimethylbenzene			
RT=	13:43.5	Fit=	100	0.170 ppb
#62	Benzene, 1,3-dichloro-			
RT=	13:59.0	Net=	78.0*	
#63	1,2-dichlorobenzene			
RT=	13:59.2	Fit=	99.9	0.003 ppb
#64	1,4-dichlorobenzene			
RT=	13:59.2	Fit=	98.7	0.002 ppb
#65	1,3-dichlorobenzene			
RT=	13:59.2	Fit=	99.3	0.003 ppb
#66	benzyl chloride			
RT=	14:06.5	Fit=	80	0.025 ppb
#67	.alpha.-Pinene			
RT=	14:18.0	Net=	93.0*	
#68	3-Carene			
RT=	14:18.0	Net=	94.0*	
#69	1-Hexanol, 2-ethyl-			
RT=	14:27.0	Net=	85	
#70	Limonene			
RT=	14:40.0	Net=	97.0*	
#71	Acetophenone			
RT=	14:59.0	Net=	81	
#72	.alpha.-Pinene			
RT=	15:14.0	Net=	79.0*	
#73	Dodecane			
RT=	15:24.0	Net=	95.0*	
#74	Undecane			
RT=	15:30.0	Net=	83.0*	
#75	1H-Indene, 2,3-dihydro-5-methyl-			
RT=	15:45.0	Net=	84	
#76	1,3-Cyclohexadiene, 1-methyl-4-(1-met...			
RT=	15:52.0	Net=	90.0*	
#77	Dodecane			
RT=	16:09.0	Net=	76	
#78	Undecane			
RT=	16:15.0	Net=	81.0*	
#79	1,3-Cyclohexadiene, 1-methyl-4-(1-met...			
RT=	16:33.0	Net=	89.0*	
#80	Cyclohexene, 1-methyl-4-(1-methylethy...			
RT=	16:48.0	Net=	83.0*	

#81	Naphthalene			
RT=	17:34.0	Net=	84	
#82	Dodecane			
RT=	17:58.0	Net=	89.0*	
#83	Propyne			
RT=	20:28.0	Net=	79.0*	

AEIS Air Sample 2

Unknown Identification Report
Date: 01/23/14 Time: 10:36:01
Calibration Method:
/Haps/Method/Analyze/Concentrator/gc_cb5m.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of chemicals in air in air utilizing the tri-bed concentrator tube with the HAPSITE SMART portable GC/MS connected to the laptop computer. The gc_cb5m (5 minute sampling time) and The gc_cb20m (20 minute sampling time) methods are used to determine chemical concentration levels in the ppt range. The 20 minute method provides the best sensitivity.

Data File:
/Haps/Data/Analyze/Concentrator/gc_cb5m/gc_cb5m_20140123_002.hps
Data Info:

Valid GPS Information Not Available

#1	BPFB_117			
RT=	08:00.1	Fit=	99.7	5.350 ppm

AEIS Air Sample 3

Unknown Identification Report
Date: 01/23/14 Time: 11:11:28
Calibration Method:
/Haps/Method/Analyze/Concentrator/gc_cb5m.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of chemicals in air in air utilizing the tri-bed concentrator tube with the HAPSITE SMART portable GC/MS connected to the laptop computer. The gc_cb5m (5 minute sampling time) and The gc_cb20m (20 minute sampling time) methods are used to determine chemical concentration levels in the ppt range. The 20 minute method provides the best sensitivity.

Data File:
/Haps/Data/Analyze/Concentrator/gc_cb5m/gc_cb5m_20140123_003.hps
Data Info:

Valid GPS Information Not Available

#1	BPFB_117			
RT=	07:59.0	Fit=	99.6	5.350 ppm
#2	BPFB_98			
RT=	07:59.0	Fit=	99.6	5.350 ppm

AEIS Air Sample 4

Unknown Identification Report
Date: 01/23/14 Time: 11:50:11
Calibration Method:
/Haps/Method/Analyze/Concentrator/gc_cb5m.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of chemicals in air in air utilizing the tri-bed concentrator tube with the HAPSITE SMART portable GC/MS connected to the laptop computer. The gc_cb5m (5 minute sampling time) and The gc_cb20m (20 minute sampling time) methods are used to determine chemical concentration levels in the ppt range. The 20 minute method provides the best sensitivity.

Data File:
/Haps/Data/Analyze/Concentrator/gc_cb5m/gc_cb5m_20140123_004.hps
Data Info:

Valid GPS Information Not Available

#1	BPFB_117			
RT=	07:59.2	Fit=	99.6	5.350 ppm
#2	BPFB_98			
RT=	07:59.2	Fit=	99.6	5.350 ppm

AEIS Soil Sample 1

Unknown Identification Report
Date: 01/07/14 Time: 15:48:59
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140107_154859_019.hps
Data Info:

Valid GPS Information Not Available

#1	Isobutane				
RT=	01:22.0	Net=	76		
#2	Acetone				
RT=	01:35.0	Net=	79		
#3	Benzene, fluoro-				
RT=	02:55.0	Net=	94		
#4	Chlorobenzene-d5				
RT=	07:28.0	Net=	94		
#5	BPFB HAPSITE IS # 2				
RT=	07:56.0	Net=	97		
#6	117_BPFB				
RT=	07:56.2	Fit=	99.7	4.820 ppm	
#7	98_BPFB				
RT=	07:56.2	Fit=	99.7	4.820 ppm	
#8	117_BPFB				
RT=	07:56.2	Fit=	99.9	4.820 ppm	
#9	98_BPFB				
RT=	07:56.2	Fit=	99.9	4.820 ppm	
#10	1,4-Dichlorobenzene-D4				
RT=	11:06.0	Net=	96		

AEIS Soil Sample 2

Unknown Identification Report
Date: 01/09/14 Time: 09:01:05
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140109_090105_020.hps
Data Info:

Valid GPS Information Not Available

						EPA Residential Soil Standard	% of Regulatory Limit
#1	Acetone						
RT=	01:36.0	Net=	78				
#2	2-Butanone						
RT=	02:05.0	Net=	83				
#3	Benzene, fluoro-						
RT=	02:58.0	Net=	93				
#4	Chlorobenzene-d5						
RT=	07:35.0	Net=	95				
#5	BPFB HAPSITE IS # 2						
RT=	08:01.0	Net=	98			HAPSITE Internal Standard	
#6	117_BPFB						
RT=	08:01.2	Fit=	99.5	4.820 ppm		HAPSITE Internal Standard	
#7	98_BPFB						
RT=	08:01.2	Fit=	99.5	4.820 ppm		HAPSITE Internal Standard	
#8	117_BPFB						
RT=	08:01.2	Fit=	99.6	4.820 ppm		HAPSITE Internal Standard	
#9	98_BPFB						
RT=	08:01.2	Fit=	99.6	4.820 ppm		HAPSITE Internal Standard	
#10	Benzaldehyde						
RT=	10:10.0	Net=	92				
#11	1,4-Dichlorobenzene-D4						
RT=	11:09.0	Net=	96				

AEIS Soil Sample 3

Unknown Identification Report
Date: 01/09/14 Time: 11:40:48
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140109_114048_022.hps
Data Info:

Valid GPS Information Not Available

						EPA Residential Soil Standard	% of Regulatory Limit
#1	Benzene, fluoro-						
RT=	02:57.0	Net=	92				
#2	Chlorobenzene-d5						
RT=	07:31.0	Net=	93				
#3	BPFB HAPSITE IS # 2						
RT=	07:58.0	Net=	99			HAPSITE Internal Standard	
#4	117_BPFB						
RT=	07:58.3	Fit=	98.4	4.820 ppm		HAPSITE Internal Standard	
#5	117_BPFB						
RT=	07:58.3	Fit=	98.3	4.820 ppm		HAPSITE Internal Standard	
#6	98_BPFB						
RT=	07:59.3	Fit=	98.4	4.820 ppm		HAPSITE Internal Standard	
#7	98_BPFB						
RT=	07:59.3	Fit=	98.1	4.820 ppm		HAPSITE Internal Standard	
#8	Benzaldehyde						
RT=	10:08.0	Net=	80				
#9	1,4-Dichlorobenzene-D4						
RT=	10:39.0	Net=	85				

Unknown Identification Report
Date: 01/09/14 Time: 12:10:28
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140109_121028_023.hps
Data Info:

Valid GPS Information Not Available

					EPA Residential Soil Standard	% of Regulatory Limit
#1	Benzene, fluoro-					
RT=	02:57.0	Net=	91			
#2	Chlorobenzene-d5					
RT=	07:30.0	Net=	93			
#3	117_BPFB					
RT=	07:58.6	Fit=	97.9	4.820 ppm	HAPSITE Internal Standard	
#4	98_BPFB					
RT=	07:58.6	Fit=	97.9	4.820 ppm	HAPSITE Internal Standard	
#5	117_BPFB					
RT=	07:58.6	Fit=	97.6	4.820 ppm	HAPSITE Internal Standard	
#6	98_BPFB					
RT=	07:58.6	Fit=	97.6	4.820 ppm	HAPSITE Internal Standard	
#7	BPFB HAPSITE IS # 2					
RT=	07:59.0	Net=	98		HAPSITE Internal Standard	
#8	1,4-Dichlorobenzene-D4					
RT=	10:04.0	Net=	91			
#9	1,4-Dichlorobenzene-D4					
RT=	11:08.0	Net=	96			

Unknown Identification Report
Date: 01/09/14 Time: 12:42:42
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140109_124242_024.hps
Data Info:

Valid GPS Information Not Available

					EPA Residential Soil Standard	% of Regulatory Limit
#1	Propyne					
RT=	01:03.0	Net=	79.0*			
#2	Benzene, fluoro-					
RT=	02:50.0	Net=	91			
#3	Chlorobenzene-d5					
RT=	03:21.0	Net=	88			
#4	BPFB HAPSITE IS # 2					
RT=	04:01.0	Net=	88		HAPSITE Internal Standard	
#5	Chlorobenzene-d5					
RT=	07:26.0	Net=	92			
#6	BPFB HAPSITE IS # 2					
RT=	07:53.0	Net=	98		HAPSITE Internal Standard	
#7	117_BPFB					
RT=	07:54.4	Fit=	97.9	4.820 ppm	HAPSITE Internal Standard	
#8	98_BPFB					
RT=	07:54.4	Fit=	97.8	4.820 ppm	HAPSITE Internal Standard	
#9	117_BPFB					
RT=	07:54.4	Fit=	97.6	4.820 ppm	HAPSITE Internal Standard	
#10	98_BPFB					
RT=	07:54.4	Fit=	97.5	4.820 ppm	HAPSITE Internal Standard	
#11	1,4-Dichlorobenzene-D4					
RT=	10:31.0	Net=	91			

Unknown Identification Report
Date: 01/09/14 Time: 13:18:08
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140109_131808_025.hps
Data Info:

Valid GPS Information Not Available

Target Library: C:\hapsrun\method\CWA_hssl
Last Calibrated:

Peak Search Parameters:
Search Window: 0:35.00
Window Expand Factor: 0.030
Peak Resolution: 30
Noise Level Multiplier: 2.000
Minimum Area: 40000
Minimum Width: 7
Maximum Width: 60
Minimum Fit: 0.900
Minimum Purity: 0.500

No Internal Standard Compound is found.

Target Library: C:\hapsrun\method\hs_slitf
Last Calibrated:

Peak Search Parameters:
Search Window: 0:35.00
Window Expand Factor: 0.030
Peak Resolution: 30

AEIS Soil Sample 6

Noise Level Multiplier: 2.000
Minimum Area: 40000
Minimum Width: 7
Maximum Width: 60
Minimum Fit: 0.900
Minimum Purity: 0.500

No Internal Standard Compound is found.

Unknown Identification Report
Date: 01/09/14 Time: 15:06:33
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140109_150633_027.hps
Data Info:

Valid GPS Information Not Available

					EPA Residential Soil Standard	% of Regulatory Limit
#1	Propyne					
RT=	00:29.0	Net=	78.0*			
#2	Propyne					
RT=	01:04.0	Net=	79.0*			
#3	Cyclopropane					
RT=	01:07.0	Net=	81			
#4	Benzene, fluoro-					
RT=	02:57.0	Net=	92			
#5	Chlorobenzene-d5					
RT=	07:30.0	Net=	92			
#6	BPFB HAPSITE IS # 2					
RT=	07:58.0	Net=	98		HAPSITE Internal Standard	
#7	117_BPFB					
RT=	07:58.5	Fit=	97.5	4.820 ppm	HAPSITE Internal Standard	
#8	98_BPFB					
RT=	07:58.5	Fit=	97.5	4.820 ppm	HAPSITE Internal Standard	
#9	117_BPFB					
RT=	07:58.5	Fit=	97.1	4.820 ppm	HAPSITE Internal Standard	
#10	98_BPFB					
RT=	07:58.5	Fit=	97.1	4.820 ppm	HAPSITE Internal Standard	
#11	1,4-Dichlorobenzene-D4					
RT=	11:07.0	Net=	96			

Unknown Identification Report
Date: 01/10/14 Time: 13:28:15
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140110_132815_029.hps
Data Info:

Valid GPS Information Not Available

					EPA Residential Soil Standard	% of Regulatory Limit
#1	Benzene, fluoro-					
RT=	02:57.0	Net=	97			
#2	Chlorobenzene-d5					
RT=	03:41.0	Net=	78			
#3	Chlorobenzene-d5					
RT=	07:34.0	Net=	93			
#4	117_BPFB					
RT=	07:59.6	Fit=	99.6	4.820 ppm	HAPSITE Internal Standard	
#5	98_BPFB					
RT=	07:59.6	Fit=	99.6	4.820 ppm	HAPSITE Internal Standard	
#6	117_BPFB					
RT=	07:59.6	Fit=	99.7	4.820 ppm	HAPSITE Internal Standard	
#7	98_BPFB					
RT=	07:59.6	Fit=	99.7	4.820 ppm	HAPSITE Internal Standard	
#8	BPFB HAPSITE IS # 2					
RT=	08:00.0	Net=	98		HAPSITE Internal Standard	
#9	1,4-Dichlorobenzene-D4					
RT=	11:09.0	Net=	96			

Unknown Identification Report
Date: 01/10/14 Time: 14:29:42
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140110_142942_031.hps
Data Info:

Valid GPS Information Not Available

					EPA Residential Soil Standard	% of Regulatory Limit
#1	Benzene, fluoro-					
RT=	02:55.0	Net=	96			
#2	Chlorobenzene-d5					
RT=	07:30.0	Net=	93			
#3	117_BPFB					
RT=	07:56.8	Fit=	99.6	4.820 ppm	HAPSITE Internal Standard	
#4	117_BPFB					
RT=	07:56.8	Fit=	99.7	4.820 ppm	HAPSITE Internal Standard	
#5	98_BPFB					
RT=	07:57.9	Fit=	99.7	4.820 ppm	HAPSITE Internal Standard	
#6	98_BPFB					
RT=	07:57.9	Fit=	99.7	4.820 ppm	HAPSITE Internal Standard	
#7	BPFB HAPSITE IS # 2					
RT=	07:58.0	Net=	98		HAPSITE Internal Standard	
#8	1,4-Dichlorobenzene-D4					
RT=	11:07.0	Net=	96			

AEIS Soil Sample 10

Unknown Identification Report
Date: 01/13/14 Time: 12:49:46
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140113_124946_033.hps
Data Info:

Valid GPS Information Not Available

						EPA Residential Soil Standard	% of Regulatory Limit
#1	Benzene, fluoro-						
RT=	02:52.0	Net=	96				
#2	Chlorobenzene-d5						
RT=	07:27.0	Net=	92				
#3	BPFB HAPSITE IS # 2						
RT=	07:55.0	Net=	98				
#4	117_BPFB						
RT=	07:55.4	Fit=	99.5	4.820 ppm		HAPSITE Internal Standard	
#5	98_BPFB						
RT=	07:55.4	Fit=	99.5	4.820 ppm		HAPSITE Internal Standard	
#6	117_BPFB						
RT=	07:55.4	Fit=	99.5	4.820 ppm		HAPSITE Internal Standard	
#7	98_BPFB						
RT=	07:55.4	Fit=	99.5	4.820 ppm		HAPSITE Internal Standard	
#8	1,4-Dichlorobenzene-D4						
RT=	11:07.0	Net=	96				

BH Air Sample 1

Unknown Identification Report
Date: 01/08/14 Time: 15:11:47
Calibration Method:
/Haps/Method/Volatiles.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of 74 VOC compounds

For detailed information on this method, please refer to the technical report titled "Development and Demonstration of the Performance of Composite Calibration Curves for the Analysis of Volatile Organic Compounds in Air Using the HAPSITE Smart Plus" (MacGregor 2012) prepared by Battelle for USAFSAM.

Data File:
/Haps/Data/Volatiles/VOC_20m_20140108_003.hps
Data Info:

Valid GPS Information Not Available

#1	Sulfur dioxide			
RT=	01:25.0	Net=	81	
#2	Butane			
RT=	01:30.0	Net=	94.0*	
#3	n-butane			
RT=	01:30.1	Fit=	100	1.338 ppb
#4	Acetone			
RT=	01:40.7	Fit=	82.9	1.735 ppb
#5	acrolein			
RT=	01:41.7	Fit=	96.3	9.125 ppb
#6	Butane, 2-methyl-			
RT=	01:42.0	Net=	96.0*	
#7	Pentane			
RT=	01:47.0	Fit=	99.5	0.804 ppb
#8	tert-butyl alcohol			
RT=	01:51.1	Fit=	91.7	0.026 ppb
#9	1-Butene, 3-methyl-			
RT=	01:53.0	Net=	76	
#10	2-Methyl-1-butene			
RT=	01:53.0	Net=	76	

BH Air Sample 1

#11	Methylene Chloride			
RT=	01:54.3	Fit=	98.5	0.046 ppb
#12	Ethane, 1,1,2-trichloro-1,2,2-trifluoro-			
RT=	01:56.0	Net=	76	
#13	Carbon disulfide			
RT=	02:00.6	Fit=	100	0.456 ppb
#14	vinyl acetate			
RT=	02:14.2	Fit=	79.7	3.221 ppb
#15	2-Butanone			
RT=	02:14.2	Fit=	88.6	4.016 ppb
#16	Hexane			
RT=	02:22.7	Fit=	98.1	0.494 ppb
#17	Methane, isocyanato-			
RT=	02:23.0	Net=	83	
#18	ethyl acetate			
RT=	02:32.1	Fit=	87.7	0.076 ppb
#19	chloroform			
RT=	02:41.5	Fit=	83.4	0.001 ppb
#20	tetrahydrofuran			
RT=	02:46.7	Fit=	76.7	0.005 ppb
#21	TRIS HAPSITE IS #1			
RT=	02:55.0	Net=	95	
#22	Tris_213			
RT=	02:55.2	Fit=	52.6	10.40 ppm
#23	Tris_69			
RT=	02:55.2	Fit=	52.6	10.40 ppm
#24	1,1,1-trichloroethane			
RT=	03:02.5	Fit=	86.6	0.002 ppb
#25	Benzene			
RT=	03:18.2	Fit=	99.9	0.362 ppb
#26	Carbon Tetrachloride			
RT=	03:23.4	Fit=	99.9	0.034 ppb
#27	Cyclohexane			
RT=	03:28.6	Fit=	99.7	0.115 ppb
#28	isooctane			
RT=	04:04.3	Fit=	95.5	0.009 ppb
#29	bromodichloromethane			
RT=	04:12.8	Fit=	93.6	0.001 ppb
#30	methyl methacrylate			
RT=	04:12.8	Fit=	100	0.157 ppb
#31	2-Propenoic acid, 2-methyl-, methyl e...			
RT=	04:14.0	Net=	84	
#32	Heptane			
RT=	04:18.0	Fit=	98.6	0.104 ppb
#33	Methyl Isobutyl Ketone			
RT=	04:56.7	Fit=	98.8	0.229 ppb
#34	Cyclohexane, methyl-			

BH Air Sample 1

RT=	04:59.0	Net=	93	
#35	1,1,2-trichloroethane			
RT=	05:36.6	Fit=	88.3	0.001 ppb
#36	Toluene			
RT=	06:10.1	Fit=	99.9	2.604 ppb
#37	2-Hexanone			
RT=	06:44.5	Fit=	82.7	0.002 ppb
#38	Octane			
RT=	06:57.0	Net=	86.0*	
#39	dibromochloromethane			
RT=	07:14.8	Fit=	77.3	0.000 ppb
#40	Octane			
RT=	08:08.0	Net=	92	
#41	Tetrachloroethylene			
RT=	08:09.3	Fit=	91	0.002 ppb
#42	Furfural			
RT=	08:13.0	Net=	79	
#43	Nonane			
RT=	08:49.0	Net=	76.0*	
#44	Octane			
RT=	09:06.0	Net=	85.0*	
#45	chlorobenzene			
RT=	09:21.6	Fit=	89.7	0.002 ppb
#46	Acetamide, N,N-dimethyl-			
RT=	09:35.0	Net=	99	
#47	BPFB_248			
RT=	09:46.9	Fit=	97.9	5.350 ppm
#48	BPFB_167			
RT=	09:46.9	Fit=	97.9	5.350 ppm
#49	BPFB_117			
RT=	09:46.9	Fit=	97.6	5.350 ppm
#50	BPFB_98			
RT=	09:46.9	Fit=	97.6	5.350 ppm
#51	BPFB HAPSITE IS # 2			
RT=	09:47.0	Net=	97	
#52	Ethylbenzene			
RT=	10:00.5	Fit=	99.7	0.961 ppb
#53	p-Xylene			
RT=	10:18.0	Net=	98.0*	
#54	o-Xylene			
RT=	10:18.0	Net=	95.0*	
#55	m&p-xylene			
RT=	10:18.3	Fit=	99.9	1.555 ppb
#56	Nonane			
RT=	10:31.0	Net=	87.0*	
#57	styrene			
RT=	10:50.8	Fit=	99.4	0.077 ppb

#58	Styrene			
RT=	10:52.0	Net=	84	
#59	p-Xylene			
RT=	11:00.0	Net=	94.0*	
#60	o-xylene			
RT=	11:00.2	Fit=	99.6	0.575 ppb
#61	n-Nonane			
RT=	11:34.8	Fit=	99.6	0.022 ppb
#62	Nonane			
RT=	11:35.0	Net=	92	
#63	cumene			
RT=	11:56.9	Fit=	99.8	0.019 ppb
#64	Benzene, (1-methylethyl)-			
RT=	11:57.0	Net=	88.0*	
#65	Benzaldehyde			
RT=	12:28.0	Net=	93	
#66	.alpha.-Pinene			
RT=	12:30.0	Net=	89.0*	
#67	propyl benzene			
RT=	12:43.9	Fit=	99.1	0.061 ppb
#68	Benzene, propyl-			
RT=	12:44.0	Net=	82	
#69	4-ethyltoluene			
RT=	12:57.5	Fit=	99.7	0.481 ppb
#70	Benzene, 1-ethyl-3-methyl-			
RT=	12:58.0	Net=	94.0*	
#71	Benzene, (1-methylethyl)-			
RT=	12:58.0	Net=	91.0*	
#72	1,3,5-trimethylbenzene			
RT=	13:06.9	Fit=	98.4	0.214 ppb
#73	Benzene, 1,3,5-trimethyl-			
RT=	13:07.0	Net=	92.0*	
#74	Phenol			
RT=	13:14.0	Net=	97.0*	
#75	Benzene, 1-ethyl-4-methyl-			
RT=	13:23.0	Net=	80.0*	
#76	Benzene, 1,2,4-trimethyl-			
RT=	13:23.0	Net=	79.0*	
#77	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2...			
RT=	13:31.0	Net=	75	
#78	1,2,4-trimethylbenzene			
RT=	13:43.7	Fit=	100	0.712 ppb
#79	Benzene, 1,3,5-trimethyl-			
RT=	13:44.0	Net=	95.0*	
#80	1,3-dichlorobenzene			
RT=	14:00.5	Fit=	99.7	0.025 ppb
#81	1,4-dichlorobenzene			

BH Air Sample 1

RT=	14:00.5	Fit=	99.2	0.014 ppb
#82	Benzene, 1,4-dichloro-			
RT=	14:01.0	Net=	80.0*	
#83	Benzene, 1,2-dichloro-			
RT=	14:01.0	Net=	78.0*	
#84	benzyl chloride			
RT=	14:06.8	Fit=	80.3	0.018 ppb
#85	3-Carene			
RT=	14:18.0	Net=	77	
#86	Benzene, (1-methylethyl)-			
RT=	14:22.0	Net=	84.0*	
#87	Benzene, 1,3,5-trimethyl-			
RT=	14:22.0	Net=	90.0*	
#88	1-Hexanol, 2-ethyl-			
RT=	14:28.0	Net=	91.0*	
#89	1,2-dichlorobenzene			
RT=	14:30.8	Fit=	96.9	0.001 ppb
#90	Benzene, 2-propenyl-			
RT=	14:38.0	Net=	76.0*	
#91	Limonene			
RT=	14:40.0	Net=	91.0*	
#92	Acetophenone			
RT=	15:00.0	Net=	85.0*	
#93	1-Propanone, 1-phenyl-			
RT=	15:00.0	Net=	82.0*	
#94	Benzene, tert-butyl-			
RT=	15:08.0	Net=	79.0*	
#95	Dodecane			
RT=	15:24.0	Net=	95.0*	
#96	Dodecane			
RT=	16:15.0	Net=	94.0*	
#97	Naphthalene			
RT=	17:35.0	Net=	89	
#98	Dodecane			
RT=	17:59.0	Net=	93.0*	

BH Air Sample 2

Unknown Identification Report
Date: 01/23/14 Time: 12:30:12
Calibration Method:
/Haps/Method/Analyze/Concentrator/gc_cb5m.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of chemicals in air in air utilizing the tri-bed concentrator tube with the HAPSITE SMART portable GC/MS connected to the laptop computer. The gc_cb5m (5 minute sampling time) and The gc_cb20m (20 minute sampling time) methods are used to determine chemical concentration levels in the ppt range. The 20 minute method provides the best sensitivity.

Data File:
/Haps/Data/Analyze/Concentrator/gc_cb5m/gc_cb5m_20140123_005.hps
Data Info:

Valid GPS Information Not Available

#1	BPFB_98			
RT=	07:58.1	Fit=	99.5	5.350 ppm
#2	BPFB_117			
RT=	07:59.2	Fit=	99.6	5.350 ppm

BH Air Sample 3

Unknown Identification Report
Date: 01/23/14 Time: 13:07:15
Calibration Method:
/Haps/Method/Analyze/Concentrator/gc_cb5m.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of chemicals in air in air utilizing the tri-bed concentrator tube with the HAPSITE SMART portable GC/MS connected to the laptop computer. The gc_cb5m (5 minute sampling time) and The gc_cb20m (20 minute sampling time) methods are used to determine chemical concentration levels in the ppt range. The 20 minute method provides the best sensitivity.

Data File:
/Haps/Data/Analyze/Concentrator/gc_cb5m/gc_cb5m_20140123_006.hps
Data Info:

Valid GPS Information Not Available

#1	BPFB_117			
RT=	07:58.3	Fit=	99.6	5.350 ppm
#2	BPFB_98			
RT=	07:58.3	Fit=	99.5	5.350 ppm

BH Soil Sample 1

Unknown Identification Report
Date: 01/13/14 Time: 13:24:28
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140113_132428_034.hps
Data Info:

Valid GPS Information Not Available

						EPA Residential Soil Standard	% of Regulatory Limit
#1	Benzene, fluoro-						
RT=	02:57.0	Net=	96				
#2	Chlorobenzene-d5						
RT=	07:32.0	Net=	93				
#3	117_BPFB						
RT=	07:58.6	Fit=	99.5	4.820 ppm		HAPSITE Internal Standard	
#4	98_BPFB						
RT=	07:58.6	Fit=	99.5	4.820 ppm		HAPSITE Internal Standard	
#5	117_BPFB						
RT=	07:58.6	Fit=	99.6	4.820 ppm		HAPSITE Internal Standard	
#6	98_BPFB						
RT=	07:58.6	Fit=	99.6	4.820 ppm		HAPSITE Internal Standard	
#7	BPFB HAPSITE IS # 2						
RT=	08:00.0	Net=	97			HAPSITE Internal Standard	
#8	1,4-Dichlorobenzene-D4						
RT=	10:37.0	Net=	88				

BH Soil Sample 2

Unknown Identification Report
Date: 01/13/14 Time: 13:49:39
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140113_134939_035.hps
Data Info:

Valid GPS Information Not Available

					EPA Residential Soil Standard	% of Regulatory Limit
#1	Benzene, fluoro-					
RT=	02:57.0	Net=	96			
#2	Chlorobenzene-d5					
RT=	04:37.0	Net=	81			
#3	Chlorobenzene-d5					
RT=	07:31.0	Net=	91			
#4	BPFB HAPSITE IS # 2					
RT=	07:58.0	Net=	97		HAPSITE Internal Standard	
#5	117_BPFB					
RT=	07:58.1	Fit=	99.5	4.820 ppm	HAPSITE Internal Standard	
#6	98_BPFB					
RT=	07:58.1	Fit=	99.5	4.820 ppm	HAPSITE Internal Standard	
#7	117_BPFB					
RT=	07:58.1	Fit=	99.5	4.820 ppm	HAPSITE Internal Standard	
#8	98_BPFB					
RT=	07:58.1	Fit=	99.5	4.820 ppm	HAPSITE Internal Standard	
#9	1,4-Dichlorobenzene-D4					
RT=	10:43.0	Net=	89			

BH Soil Sample 3

Unknown Identification Report
Date: 01/14/14 Time: 08:28:53
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140114_082853_037.hps
Data Info:

Valid GPS Information Not Available

						EPA Residential Soil Standard	% of Regulatory Limit
#1	Propyne						
RT=	00:23.0	Net=	79.0*				
#2	Benzene, fluoro-						
RT=	02:57.0	Net=	96				
#3	Chlorobenzene-d5						
RT=	07:32.0	Net=	93				
#4	BPFB HAPSITE IS # 2						
RT=	07:59.0	Net=	98			HAPSITE Internal Standard	
#5	117_BPFB						
RT=	07:59.4	Fit=	99.7	4.820 ppm		HAPSITE Internal Standard	
#6	98_BPFB						
RT=	07:59.4	Fit=	99.7	4.820 ppm		HAPSITE Internal Standard	
#7	117_BPFB						
RT=	07:59.4	Fit=	99.7	4.820 ppm		HAPSITE Internal Standard	
#8	98_BPFB						
RT=	07:59.4	Fit=	99.7	4.820 ppm		HAPSITE Internal Standard	
#9	1,4-Dichlorobenzene-D4						
RT=	11:08.0	Net=	96				

KE Air Sample 1

Unknown Identification Report
Date: 01/09/14 Time: 10:02:07
Calibration Method:
/Haps/Method/Volatiles.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of 74 VOC compounds

For detailed information on this method, please refer to the technical report titled "Development and Demonstration of the Performance of Composite Calibration Curves for the Analysis of Volatile Organic Compounds in Air Using the HAPSITE Smart Plus" (MacGregor 2012) prepared by Battelle for USAFSAM.

Data File:
/Haps/Data/Volatiles/VOC_20m_20140109_001.hps
Data Info:

Valid GPS Information Not Available

#1	Propyne			
RT=	00:53.0	Net=	79.0*	
#2	Cyclopropane			
RT=	01:01.0	Net=	82	
#3	n-butane			
RT=	01:29.1	Fit=	98.8	0.948 ppb
#4	Acetone			
RT=	01:42.7	Fit=	82.5	18.63 ppb
#5	Isobutane			
RT=	01:43.0	Net=	87.0*	
#6	Isopropyl Alcohol			
RT=	01:43.0	Net=	84	
#7	isopropyl alcohol			
RT=	01:43.8	Fit=	89.2	384.93 ppb
#8	1,3-Butadiene, 2-methyl-			
RT=	01:49.0	Net=	94.0*	
#9	Methylene Chloride			
RT=	01:55.3	Fit=	95.7	0.220 ppb
#10	tert-butyl alcohol			
RT=	02:03.7	Fit=	91.7	0.017 ppb

#11	vinyl acetate			
RT=	02:14.2	Fit=	76.8	3.088 ppb
#12	2-Butanone			
RT=	02:14.2	Fit=	89.5	3.850 ppb
#13	Hexane			
RT=	02:22.5	Fit=	99.1	0.191 ppb
#14	ethyl acetate			
RT=	02:32.0	Fit=	93.5	0.315 ppb
#15	chloroform			
RT=	02:36.2	Fit=	94.1	0.043 ppb
#16	tetrahydrofuran			
RT=	02:47.7	Fit=	96.2	0.012 ppb
#17	TRIS HAPSITE IS #1			
RT=	02:55.0	Net=	94	
#18	Tris_69			
RT=	02:55.0	Fit=	78.7	10.40 ppm
#19	1,2-dichloroethane			
RT=	02:56.0	Fit=	99.7	0.121 ppb
#20	Tris_213			
RT=	02:56.0	Fit=	78.6	10.40 ppm
#21	1-Butanol			
RT=	03:16.0	Net=	88	
#22	Benzene			
RT=	03:19.1	Fit=	99.8	0.555 ppb
#23	Carbon Tetrachloride			
RT=	03:24.3	Fit=	99.9	0.075 ppb
#24	Cyclohexane			
RT=	03:29.6	Fit=	96.1	0.138 ppb
#25	1,2-dichloropropane			
RT=	03:52.6	Fit=	98.5	0.031 ppb
#26	isooctane			
RT=	04:05.2	Fit=	99.8	0.041 ppb
#27	methyl methacrylate			
RT=	04:14.7	Fit=	100	0.016 ppb
#28	Heptane			
RT=	04:18.8	Fit=	95.9	0.047 ppb
#29	Methyl Isobutyl Ketone			
RT=	04:58.7	Fit=	91.8	0.008 ppb
#30	Toluene			
RT=	06:12.1	Fit=	99.9	2.331 ppb
#31	2-Hexanone			
RT=	06:48.8	Fit=	96.6	0.002 ppb
#32	dibromochloromethane			
RT=	06:55.1	Fit=	97.7	0.001 ppb
#33	Tetrachloroethylene			
RT=	08:11.5	Fit=	99.2	0.011 ppb
#34	Chlorobenzene-d5			

KE Air Sample 1

RT=	09:18.0	Net=	83	
#35	BPFB HAPSITE IS # 2			
RT=	09:47.0	Net=	97	
#36	BPFB_98			
RT=	09:47.1	Fit=	99.1	5.350 ppm
#37	BPFB_117			
RT=	09:48.2	Fit=	99.1	5.350 ppm
#38	BPFB_167			
RT=	09:48.2	Fit=	99.1	5.350 ppm
#39	BPFB_248			
RT=	09:48.2	Fit=	99.1	5.350 ppm
#40	Ethylbenzene			
RT=	10:00.8	Fit=	99.8	0.282 ppb
#41	m&p-xylene			
RT=	10:18.6	Fit=	99.5	1.100 ppb
#42	p-Xylene			
RT=	10:19.0	Net=	98.0*	
#43	3-Heptanone			
RT=	10:38.0	Net=	77	
#44	Styrene			
RT=	10:52.0	Net=	93	
#45	styrene			
RT=	10:52.1	Fit=	99.3	0.079 ppb
#46	o-xylene			
RT=	11:01.5	Fit=	99.7	0.421 ppb
#47	p-Xylene			
RT=	11:02.0	Net=	91.0*	
#48	Ethanol, 2-butoxy-			
RT=	11:21.0	Net=	81	
#49	Nonane			
RT=	11:36.0	Net=	78.0*	
#50	Benzene, (1-methylethyl)-			
RT=	11:58.0	Net=	76	
#51	1-Butanol, 3-methyl-			
RT=	12:17.0	Net=	76	
#52	Benzaldehyde			
RT=	12:29.0	Net=	93	
#53	Benzene, propyl-			
RT=	12:45.0	Net=	83	
#54	propyl benzene			
RT=	12:45.1	Fit=	100	0.051 ppb
#55	4-ethyltoluene			
RT=	12:58.8	Fit=	99.6	0.447 ppb
#56	Benzene, 1,2,4-trimethyl-			
RT=	12:59.0	Net=	93.0*	
#57	Benzene, (1-methylethyl)-			
RT=	12:59.0	Net=	92.0*	

#58	Benzene, 1,3,5-trimethyl-			
RT=	13:08.0	Net=	93.0*	
#59	1,3,5-trimethylbenzene			
RT=	13:08.2	Fit=	98.8	0.204 ppb
#60	1,2,4-trimethylbenzene			
RT=	13:44.8	Fit=	99.9	0.653 ppb
#61	Benzene, 1,3,5-trimethyl-			
RT=	13:45.0	Net=	98.0*	
#62	1,4-Dichlorobenzene-D4			
RT=	13:58.0	Net=	90	
#63	1,2-dichlorobenzene			
RT=	14:00.4	Fit=	98	0.007 ppb
#64	1,4-dichlorobenzene			
RT=	14:00.4	Fit=	94.9	0.005 ppb
#65	1,3-dichlorobenzene			
RT=	14:00.4	Fit=	96.3	0.009 ppb
#66	Decane			
RT=	14:07.0	Net=	85.0*	
#67	benzyl chloride			
RT=	14:14.0	Fit=	80	0.001 ppb
#68	Benzene, 1,3,5-trimethyl-			
RT=	14:23.0	Net=	90.0*	
#69	1-Hexanol, 2-ethyl-			
RT=	14:29.0	Net=	89.0*	
#70	Limonene			
RT=	14:40.0	Net=	95.0*	
#71	Acetophenone			
RT=	15:01.0	Net=	87.0*	
#72	1-Propanone, 1-phenyl-			
RT=	15:01.0	Net=	81.0*	
#73	Benzene, 1,2-diethyl-			
RT=	15:04.0	Net=	75.0*	
#74	Benzene, tert-butyl-			
RT=	15:35.0	Net=	79.0*	
#75	Benzene, 1-methyl-4-(1-methylethyl)-			
RT=	15:46.0	Net=	82.0*	
#76	Undecane			
RT=	16:11.0	Net=	75	
#77	Benzene, 1,2,3,4-tetramethyl-			
RT=	16:27.0	Net=	90.0*	
#78	Dodecane			
RT=	18:00.0	Net=	82	

KE Air Sample 2

Unknown Identification Report
Date: 01/23/14 Time: 13:44:41
Calibration Method:
/Haps/Method/Analyze/Concentrator/gc_cb5m.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of chemicals in air in air utilizing the tri-bed concentrator tube with the HAPSITE SMART portable GC/MS connected to the laptop computer. The gc_cb5m (5 minute sampling time) and The gc_cb20m (20 minute sampling time) methods are used to determine chemical concentration levels in the ppt range. The 20 minute method provides the best sensitivity.

Data File:
/Haps/Data/Analyze/Concentrator/gc_cb5m/gc_cb5m_20140123_007.hps
Data Info:

Valid GPS Information Not Available

#1	BPFB_98			
RT=	07:58.2	Fit=	99.4	5.350 ppm
#2	BPFB_117			
RT=	07:59.2	Fit=	99.5	5.350 ppm

KE Soil Sample 1

Unknown Identification Report
Date: 01/14/14 Time: 08:54:41
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140114_085441_038.hps
Data Info:

Valid GPS Information Not Available

#1	Benzene, fluoro-			
RT=	00:19.0	Net=	84	
#2	Propyne			
RT=	01:10.0	Net=	79.0*	
#3	Benzene, fluoro-			
RT=	02:58.0	Net=	96	
#4	BPFB HAPSITE IS # 2			
RT=	05:38.0	Net=	75	
#5	Chlorobenzene-d5			
RT=	07:34.0	Net=	92	
#6	98_BPFB			
RT=	07:59.6	Fit=	99.6	4.820 ppm
#7	98_BPFB			
RT=	07:59.6	Fit=	99.7	4.820 ppm
#8	117_BPFB			
RT=	08:00.7	Fit=	99.6	4.820 ppm
#9	117_BPFB			
RT=	08:00.7	Fit=	99.7	4.820 ppm
#10	BPFB HAPSITE IS # 2			
RT=	08:01.0	Net=	97	
#11	1,4-Dichlorobenzene-D4			
RT=	10:47.0	Net=	84	

KE Soil Sample 2

Unknown Identification Report
Date: 01/14/14 Time: 09:14:47
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slls.mth
Tune File:
default.tun
Method Description:
Headspace method for Chemical
Agents and selected ITF compounds in
media other than water.
Significant matrix effects WILL OCCUR
and CANNOT be controlled for. This
method is only Semi-Quantitative
Scan range 41 - 300 for 15 min.
Column 60 for 1 min ramp at 20 C/min to
150 C then ramp at 10 C/min to 180 C.
Open loop

Data File:
/Haps/Data/Analyze/Headspace/hs_slls/hs_slls_20140114_091447_039.hps
Data Info:

Valid GPS Information Not Available

#1	Benzene, fluoro-			
RT=	02:51.0	Net=	96	
#2	Chlorobenzene-d5			
RT=	07:27.0	Net=	93	
#3	117_BPFB			
RT=	07:54.8	Fit=	99.7	4.820 ppm
#4	98_BPFB			
RT=	07:54.8	Fit=	99.7	4.820 ppm
#5	117_BPFB			
RT=	07:54.8	Fit=	99.7	4.820 ppm
#6	98_BPFB			
RT=	07:54.8	Fit=	99.7	4.820 ppm
#7	BPFB HAPSITE IS # 2			
RT=	07:55.0	Net=	98	
#8	1,4-Dichlorobenzene-D4			
RT=	10:26.0	Net=	76	
#9	1,4-Dichlorobenzene-D4			
RT=	11:06.0	Net=	96	

Unknown Identification Report
Date: 01/23/14 Time: 10:09:05
Calibration Method:
/Haps/Method/Analyze/Concentrator/gc_cb5m.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of chemicals in air in air utilizing the tri-bed concentrator tube with the HAPSITE SMART portable GC/MS connected to the laptop computer. The gc_cb5m (5 minute sampling time) and The gc_cb20m (20 minute sampling time) methods are used to determine chemicals concentration levels in the ppt range. The 20 minute method provides the best sensitivity.

Data File:
/Haps/Data/Analyze/Concentrator/gc_cb5m/gc_cb5m_20140123_001.hps
Data Info:

Valid GPS Information Not Available

#1	BPFB_98			
RT=	08:00.0	Fit=	99.9	5.350 ppm
#2	BPFB_117			
RT=	08:01.0	Fit=	99.9	5.350 ppm

Headspace Concentrator Blank

Unknown Identification Report
Date: 01/07/14 Time: 13:12:09
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_cbwqc.mth
Tune File:
default.tun
Method Description:
This SOP describes the process for the sampling and analysis of the EPA 8260 compounds in water using the Tri-bed concentrator tube with the HAPSITE portable GC/MS using the HAPSITE Method Data Acquisition screen. Using the Method Data Acquisition screen will allow the Cal/Quant report to be generated automatically. The purpose of this method is to provide a quantitative analysis for the 8260 compounds and trihalomethanes. This method is set to run with the NEG pump on. This method is to be used with the hs_cbwcl and the hs_cbwqc procedures.

The full EPA 8260 method run is 25 minutes. The quantitative analysis range is between 1 and 100 ppb. Internal standards and surrogates are added to the sample to determine the percent recovery. This will provide an indication of any matrix effect and provides the best mechanism to adjust/correct for it. The more similar the chemical properties between the analyte of interest and the surrogates the better the adjustment for the matrix effect.
Quantitative rep

Data File:
/Haps/Data/Analyze/Headspace/hs_cbwqc/hs_cbwqc_20140107_001.hps
Data Info:

Valid GPS Information Not Available

#1	Chloroform				
RT=	02:13.5	Fit=	98	0.005 mg/L	

Headspace Concentrator Blank

#2	Fluorobenzene				
RT=	02:53.0	Fit=	97.4	0.013 ppm	
#3	Toluene over 80ppb				
RT=	04:44.6	Fit=	98.4	0.000 mg/L	
#4	Toluene				
RT=	04:45.7	Fit=	98.4	0.000 mg/L	
#5	Chlorobenzene-d5				
RT=	07:26.7	Fit=	98.9	0.013 ppm	
#6	98_BPFB				
RT=	08:04.3	Fit=	99.6	0.025 ppm	
#7	117_BPFB				
RT=	08:04.3	Fit=	99.6	0.025 ppm	
#8	167_BPFB				
RT=	08:04.3	Fit=	87.6	0.025 ppm	
#9	246_BPFB				
RT=	08:04.3	Fit=	99.6	0.025 ppm	
#10	1,4-Dichlorobenzene-d4				
RT=	14:42.5	Fit=	99.4	0.013 ppm	

Headspace Sample Loop Blank

Unknown Identification Report
Date: 01/07/14 Time: 15:26:05
Calibration Method:
/Haps/Method/Analyze/Headspace/hs_slwqc.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The performance standard is comprised of four compounds which cover the chromatographic range of the VOC's that are applicable to the method. It is designed to evaluate the retention time, area counts and spectral quality of the four compounds. The established retention times validate that the GC flow rate has been standardized and that the GC is functioning correctly. The area counts check the overall sensitivity of the system including the proper transfer of sample from the Headspace sampler. The spectral quality checks that the MS is tuned correctly and functioning correctly. This procedure also runs a system blank and can be used to check for carryover or contamination in the system.

Data File:
/Haps/Data/Analyze/Headspace/hs_slwqc/hs_slwqc_20140107_001.hps
Data Info:

Valid GPS Information Not Available

#1	Benzene, fluoro-				
RT=	02:54.6	Fit=	99.6	58.37 ug/L	
#2	Chlorobenzene-d5				
RT=	07:29.1	Fit=	79.2	38.47 ug/L	
#3	HAPSITE IS # 2 BPFB				
RT=	07:56.3	Fit=	99.5	140.68 ug/L	
#4	1,4-Dichlorobenzene-D4				
RT=	11:06.2	Fit=	99.6	62.72 ug/L	

VOC Method Air Blank

Unknown Identification Report
Date: 01/09/14 Time: 10:02:07
Calibration Method:
/Haps/Method/Volatiles.mth
Tune File:
default.tun
Method Description:
Use/Limitations:

The methods described in this procedure provides analysis of 74 VOC compounds

For detailed information on this method, please refer to the technical report titled "Development and Demonstration of the Performance of Composite Calibration Curves for the Analysis of Volatile Organic Compounds in Air Using the HAPSITE Smart Plus" (MacGregor 2012) prepared by Battelle for USAFSAM.

Data File:
/Haps/Data/Volatiles/VOC_20m_20140109_001.hps
Data Info:

Valid GPS Information Not Available

#1	Propyne				
RT=	00:53.0	Net=	79.0*		
#2	Cyclopropane				
RT=	01:01.0	Net=	82		
#3	n-butane				
RT=	01:29.1	Fit=	98.8	0.948 ppb	
#4	Acetone				
RT=	01:42.7	Fit=	82.5	18.63 ppb	
#5	Isobutane				
RT=	01:43.0	Net=	87.0*		
#6	Isopropyl Alcohol				
RT=	01:43.0	Net=	84		
#7	isopropyl alcohol				
RT=	01:43.8	Fit=	89.2	384.93 ppb	
#8	1,3-Butadiene, 2-methyl-				
RT=	01:49.0	Net=	94.0*		
#9	Methylene Chloride				
RT=	01:55.3	Fit=	95.7	0.220 ppb	
#10	tert-butyl alcohol				

VOC Method Air Blank

RT=	02:03.7	Fit=	91.7	0.017 ppb	
#11	vinyl acetate				
RT=	02:14.2	Fit=	76.8	3.088 ppb	
#12	2-Butanone				
RT=	02:14.2	Fit=	89.5	3.850 ppb	
#13	Hexane				
RT=	02:22.5	Fit=	99.1	0.191 ppb	
#14	ethyl acetate				
RT=	02:32.0	Fit=	93.5	0.315 ppb	
#15	chloroform				
RT=	02:36.2	Fit=	94.1	0.043 ppb	
#16	tetrahydrofuran				
RT=	02:47.7	Fit=	96.2	0.012 ppb	
#17	TRIS HAPSITE IS #1				
RT=	02:55.0	Net=	94		
#18	Tris_69				
RT=	02:55.0	Fit=	78.7	10.40 ppm	
#19	1,2-dichloroethane				
RT=	02:56.0	Fit=	99.7	0.121 ppb	
#20	Tris_213				
RT=	02:56.0	Fit=	78.6	10.40 ppm	
#21	1-Butanol				
RT=	03:16.0	Net=	88		
#22	Benzene				
RT=	03:19.1	Fit=	99.8	0.555 ppb	
#23	Carbon Tetrachloride				
RT=	03:24.3	Fit=	99.9	0.075 ppb	
#24	Cyclohexane				
RT=	03:29.6	Fit=	96.1	0.138 ppb	
#25	1,2-dichloropropane				
RT=	03:52.6	Fit=	98.5	0.031 ppb	
#26	isooctane				
RT=	04:05.2	Fit=	99.8	0.041 ppb	
#27	methyl methacrylate				
RT=	04:14.7	Fit=	100	0.016 ppb	
#28	Heptane				
RT=	04:18.8	Fit=	95.9	0.047 ppb	
#29	Methyl Isobutyl Ketone				
RT=	04:58.7	Fit=	91.8	0.008 ppb	
#30	Toluene				
RT=	06:12.1	Fit=	99.9	2.331 ppb	
#31	2-Hexanone				
RT=	06:48.8	Fit=	96.6	0.002 ppb	
#32	dibromochloromethane				
RT=	06:55.1	Fit=	97.7	0.001 ppb	
#33	Tetrachloroethylene				
RT=	08:11.5	Fit=	99.2	0.011 ppb	

#34	Chlorobenzene-d5				
RT=	09:18.0	Net=	83		
#35	BPFB HAPSITE IS # 2				
RT=	09:47.0	Net=	97		
#36	BPFB_98				
RT=	09:47.1	Fit=	99.1	5.350 ppm	
#37	BPFB_117				
RT=	09:48.2	Fit=	99.1	5.350 ppm	
#38	BPFB_167				
RT=	09:48.2	Fit=	99.1	5.350 ppm	
#39	BPFB_248				
RT=	09:48.2	Fit=	99.1	5.350 ppm	
#40	Ethylbenzene				
RT=	10:00.8	Fit=	99.8	0.282 ppb	
#41	m&p-xylene				
RT=	10:18.6	Fit=	99.5	1.100 ppb	
#42	p-Xylene				
RT=	10:19.0	Net=	98.0*		
#43	3-Heptanone				
RT=	10:38.0	Net=	77		
#44	Styrene				
RT=	10:52.0	Net=	93		
#45	styrene				
RT=	10:52.1	Fit=	99.3	0.079 ppb	
#46	o-xylene				
RT=	11:01.5	Fit=	99.7	0.421 ppb	
#47	p-Xylene				
RT=	11:02.0	Net=	91.0*		
#48	Ethanol, 2-butoxy-				
RT=	11:21.0	Net=	81		
#49	Nonane				
RT=	11:36.0	Net=	78.0*		
#50	Benzene, (1-methylethyl)-				
RT=	11:58.0	Net=	76		
#51	1-Butanol, 3-methyl-				
RT=	12:17.0	Net=	76		
#52	Benzaldehyde				
RT=	12:29.0	Net=	93		
#53	Benzene, propyl-				
RT=	12:45.0	Net=	83		
#54	propyl benzene				
RT=	12:45.1	Fit=	100	0.051 ppb	
#55	4-ethyltoluene				
RT=	12:58.8	Fit=	99.6	0.447 ppb	
#56	Benzene, 1,2,4-trimethyl-				
RT=	12:59.0	Net=	93.0*		
#57	Benzene, (1-methylethyl)-				

RT=	12:59.0	Net=	92.0*		
#58	Benzene, 1,3,5-trimethyl-				
RT=	13:08.0	Net=	93.0*		
#59	1,3,5-trimethylbenzene				
RT=	13:08.2	Fit=	98.8	0.204 ppb	
#60	1,2,4-trimethylbenzene				
RT=	13:44.8	Fit=	99.9	0.653 ppb	
#61	Benzene, 1,3,5-trimethyl-				
RT=	13:45.0	Net=	98.0*		
#62	1,4-Dichlorobenzene-D4				
RT=	13:58.0	Net=	90		
#63	1,2-dichlorobenzene				
RT=	14:00.4	Fit=	98	0.007 ppb	
#64	1,4-dichlorobenzene				
RT=	14:00.4	Fit=	94.9	0.005 ppb	
#65	1,3-dichlorobenzene				
RT=	14:00.4	Fit=	96.3	0.009 ppb	
#66	Decane				
RT=	14:07.0	Net=	85.0*		
#67	benzyl chloride				
RT=	14:14.0	Fit=	80	0.001 ppb	
#68	Benzene, 1,3,5-trimethyl-				
RT=	14:23.0	Net=	90.0*		
#69	1-Hexanol, 2-ethyl-				
RT=	14:29.0	Net=	89.0*		
#70	Limonene				
RT=	14:40.0	Net=	95.0*		
#71	Acetophenone				
RT=	15:01.0	Net=	87.0*		
#72	1-Propanone, 1-phenyl-				
RT=	15:01.0	Net=	81.0*		
#73	Benzene, 1,2-diethyl-				
RT=	15:04.0	Net=	75.0*		
#74	Benzene, tert-butyl-				
RT=	15:35.0	Net=	79.0*		
#75	Benzene, 1-methyl-4-(1-methylethyl)-				
RT=	15:46.0	Net=	82.0*		
#76	Undecane				
RT=	16:11.0	Net=	75		
#77	Benzene, 1,2,3,4-tetramethyl-				
RT=	16:27.0	Net=	90.0*		
#78	Dodecane				
RT=	18:00.0	Net=	82		