



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 377TH AIR BASE WING (AFMC)

 **ENTERED**

NOV 1 2012

Colonel John C. Kubinec
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB NM 87117-5600

Mr. John Kieling, Manager
RCRA Permits Management Program
Hazardous Waste Bureau (HWB)
New Mexico Environment Department (NMED)
2905 Rodeo Park Road
Santa Fe New Mexico 87505

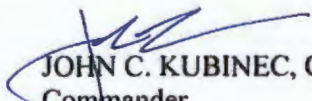


Dear Mr. Kieling

Attached please find *July 2012 Indoor Air Evaluation Sample Results as applicable to: Approved Final Indoor Air Work Plan, January 2012, Bulk Fuels Facility Spill, SWMUs ST-106 and SS-111, October 2012*. This report has been prepared to summarize the air sampling process and provide the analytical results for the July indoor air sampling event at the Bulk Fuels Facility. This set of results from the summer samples are one of two that will be performed. The second set of indoor air samples will occur in the winter (January 2013). After the January 2013 samples are collected, a more comprehensive report will be submitted based on both set of results.

Please contact Mr. L. Wayne Bitner at (505) 853-3484 or at ludie.bitner@kirtland.af.mil or Ms. Victoria R. Martinez at (505) 846-6362 or at victoria.martinez@kirtland.af.mil if you have questions.

Sincerely


JOHN C. KUBINEC, Colonel, USAF
Commander

Attachment: *July 2012 Indoor Air Evaluation Sample Results as applicable to: Approved Final Indoor Air Work Plan, January 2012, Bulk Fuels Facility Spill, SWMUs ST-106 and SS-111, October 2012*


cc:
NMED-RPD (Davis), w/out attach
NMED-HWB (Moats, McDonald, Salem, Brandwein), w/ attach
NMED-GWQB (J. Schoeppner), w/ attach
NMED-OGC (L. Barnhart), w/out attach
EPA Region 6 (L. King), w/out attach
AFCEE/CMSE (Mr. Oyelowo), w/out attach
/EXEC (Mr. Urrutia), w/out attach
Public Info Repository (Central New Mexico), w/ attach
Administrative Record/Information Repository (AR/IR), w/ attach
File. w/ attach

KAFB3970



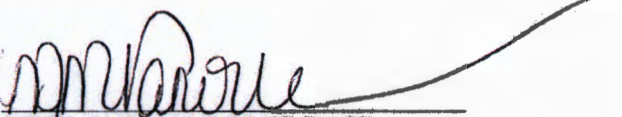
**40 CFR 270.11
DOCUMENT CERTIFICATION
OCTOBER 2012**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.



JOHN C. KUBINEC, Colonel, USAF
Commander, 377th Air Base Wing

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KIRTLAND AIR FORCE BASE
377th Air Base Wing Public Affairs

KIRTLAND AIR FORCE BASE ALBUQUERQUE, NEW MEXICO

July 2012 Indoor Air Evaluation Sample Results

As applicable to:

Approved Final Indoor Air Work Plan,

January 2012

Bulk Fuels Facility Spill

Solid Waste Management Units ST-106 and SS-111

October 2012




377 MSG/CEANR

2050 Wyoming Blvd. SE

Kirtland AFB, New Mexico 87117-5270

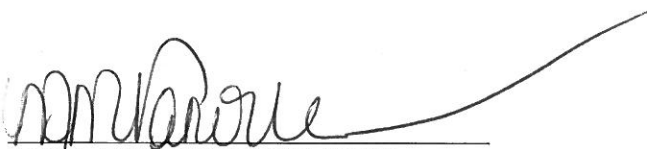
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KIRTLAND AIR FORCE BASE
377th Air Base Wing Public Affairs



October 15, 2012

Subject: July 2012 Indoor Air Evaluation Sample Results
As applicable to:
Approved Final Indoor Air Work Plan, January 2012
Bulk Fuels Facility Spill, SWMUs ST-106 and SS-111
October 2012

This Indoor Air Evaluation July Letter Report has been prepared by Shaw Environmental & Infrastructure, Inc. (Shaw) for the U.S. Army Corps of Engineers (USACE), Albuquerque District, under Contract W912DY-10-D-0014, Delivery Order 002. The scope of the sampling and evaluation was defined during the ongoing working group meetings between Kirtland Air Force Base (AFB), Shaw, and New Mexico Environment Department (NMED) Hazardous Waste Bureau representatives. Documentation and approval of the scope was achieved through the Final Indoor Air Evaluation Work Plan (USACE, 2012). As such, the evaluation of the indoor air data does not include site-specific fate and transport modeling as requested in the letter from the NMED, dated January 28, 2011. In addition, as agreed to by the NMED and Kirtland AFB, the indoor air data will not be used to conduct a human health risk assessment as directed in the NMED letter.

The objective of this Letter Report is to summarize the air sampling process and provide the analytical results for the July indoor air sampling event at the Bulk Fuels Facility, Kirtland AFB (KAFB), Albuquerque, New Mexico. Shaw personnel conducted the sampling on July 17, 2012, in accordance with the final and approved Indoor Air Evaluation Work Plan (USACE, 2012). Field notes, sample collection logs, and the chain-of-custody record are provided at the end of this report as Attachment 1.

Sampling Procedure

On July 17, 2012, the Shaw field team collected a total of six air samples and one duplicate air sample. One sample characterized the ambient/outdoor air for Buildings 1026 and 1032; one sample characterized the ambient/outdoor air for Building 1033; one sample characterized the indoor air of Building 1026; one sample characterized the indoor air of Building 1033; and two samples characterized the indoor air of Building 1032. The duplicate air sample corresponded to one of the indoor air samples from Building 1032 (KAFB-Indoor-1032-2). Buildings 1026 and 1032 share an ambient/outdoor sample because one of the eight SUMMA™ canisters ordered from the laboratory appeared to be leaking when first tested. This canister was not used during sampling. The indoor air sampling locations for each of the buildings are shown on Figures 1 through 3. The ambient/outdoor air sampling locations are shown on Figure 4.

The air samples were collected in certified-clean, 6-liter, passivated, steel SUMMA™ canisters within an 8-hour period at all sampling locations. Each sample of air was drawn through a sampling train of components that regulated the rate and duration of sampling into a pre-evacuated canister. Each

pre-evacuated canister received from Eurofins Air Toxics Ltd. was equipped with a brass plug, vacuum gauge, and flow controller. Prior to shipment, the laboratory confirmed the flow rates for each orifice. A more detailed explanation of the sampling protocol is presented in Section 6.1 of the Indoor Air Evaluation Work Plan (USACE, 2012).

Throughout the day, Shaw personnel noted the conditions that might affect the interpretation of the results under which the samples were collected. The conditions for ambient air samples included weather, temperature, humidity, wind speed, and barometric pressure. The conditions for indoor air samples included the building foundations, cracks, drains or sumps, and presence of potential volatile organic compounds (VOCs) not caused by the jet fuel plume. All building conditions are documented in the field notes in Attachment 1. For the ambient/outdoor air samples, as shown on Figure 4, three soil vapor extraction (SVE) units are present within 200 feet of ambient air sampling locations. Sample KAFB-Ambient-1032 is located only 75 feet southeast of SVE Unit 335 at KAFB-106149.

Sampling Results

Air samples were shipped to Eurofins Air Toxics Ltd. on July 18, 2012, where they were tested for VOCs using Modified U.S. Environmental Protection Agency (EPA) Method TO-15 (low level) (EPA, 1999). The detected VOCs are presented in Table 1. The complete analytical data package is provided as Attachment 2. Four parameters (benzene; carbon tetrachloride; ethylbenzene; and 1,2,4-trimethylbenzene) exceed the Carcinogenic Target Risk Regional Screening Level for Resident Air based on the EPA (2012) standard. The results for both the ambient/outdoor air samples and indoor air samples indicate detections of many VOCs (Table 1).

Future Activities

Another air sampling event will be conducted in January 2013 to represent the winter season. After sampling has been concluded and the data are validated, Shaw will prepare a letter report for submittal to the NMED. The January 2013 letter report will include the following information:

- A summary of the air sampling process
- The analytical results for both the July 2012 and January 2013 sampling events
- A figure showing the sampling locations and a table providing significant results
- Interpretation of the data, including comparing indoor concentrations with outdoor concentrations and relevant risk-based criteria for the sampled compounds

References

EPA. 2012. *Regional Screening Level (RSL) Resident Air Supporting Table*, April.

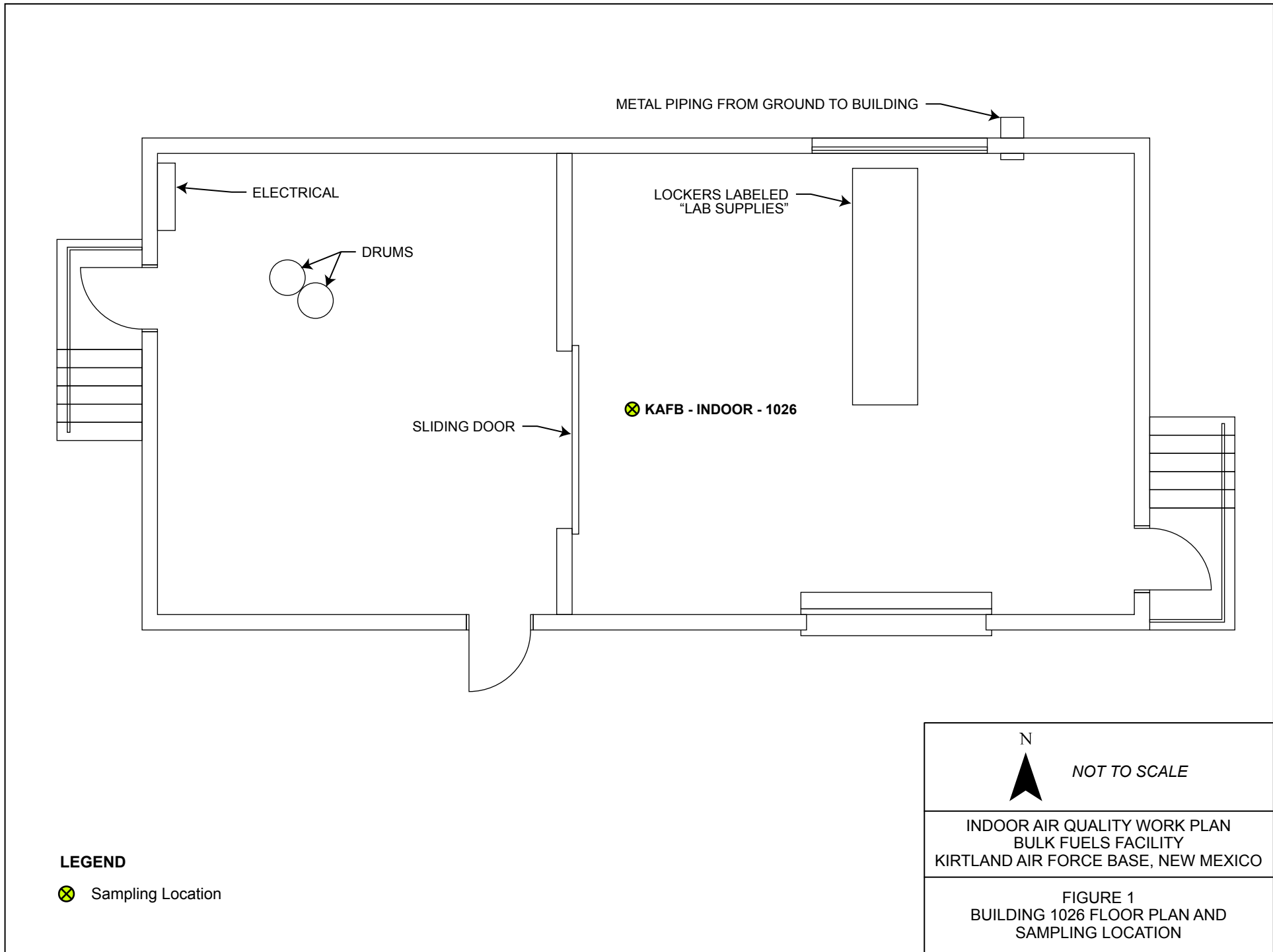
EPA. 1999. *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Compendium Method TO-15 Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS)*, 2nd ed. January.

USACE. 2012. *Indoor Air Evaluation Work Plan, Bulk Fuels Facility Spill, Solid Waste Management Units ST-106 and SS-111*. Prepared by Shaw Environmental & Infrastructure, Inc. for the U.S. Army Corps of Engineers under USACE Contract No. W912DY-10-D-0014, Delivery Order 0002. January.

FIGURES

- Figure 1 Building 1026 Floor Plan and Sampling Location**
- Figure 2 Building 1032 Floor Plan and Sampling Locations**
- Figure 3 Building 1033 Floor Plan and Sampling Location**
- Figure 4 Ambient Sampling Locations**

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⊗ Sampling Location

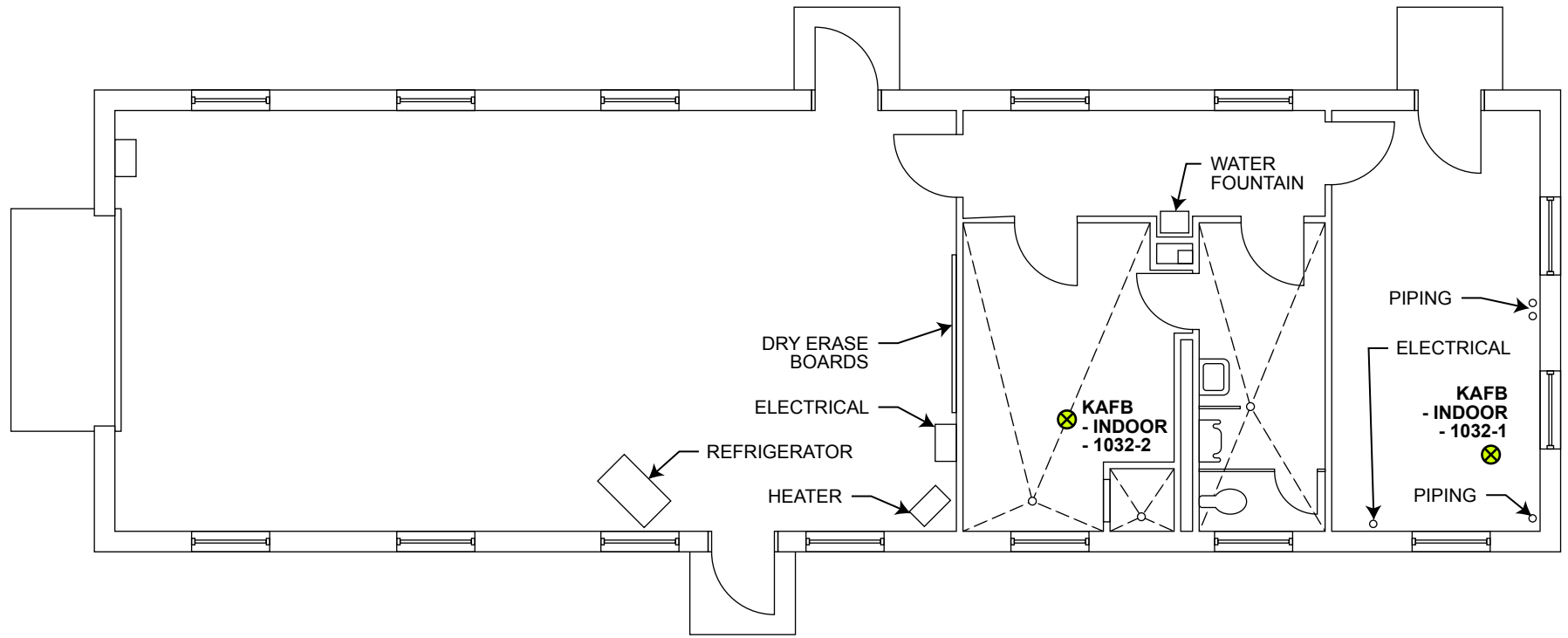


NOT TO SCALE

INDOOR AIR QUALITY WORK PLAN
 BULK FUELS FACILITY
 KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 1
 BUILDING 1026 FLOOR PLAN AND
 SAMPLING LOCATION

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⊗ Sampling Location

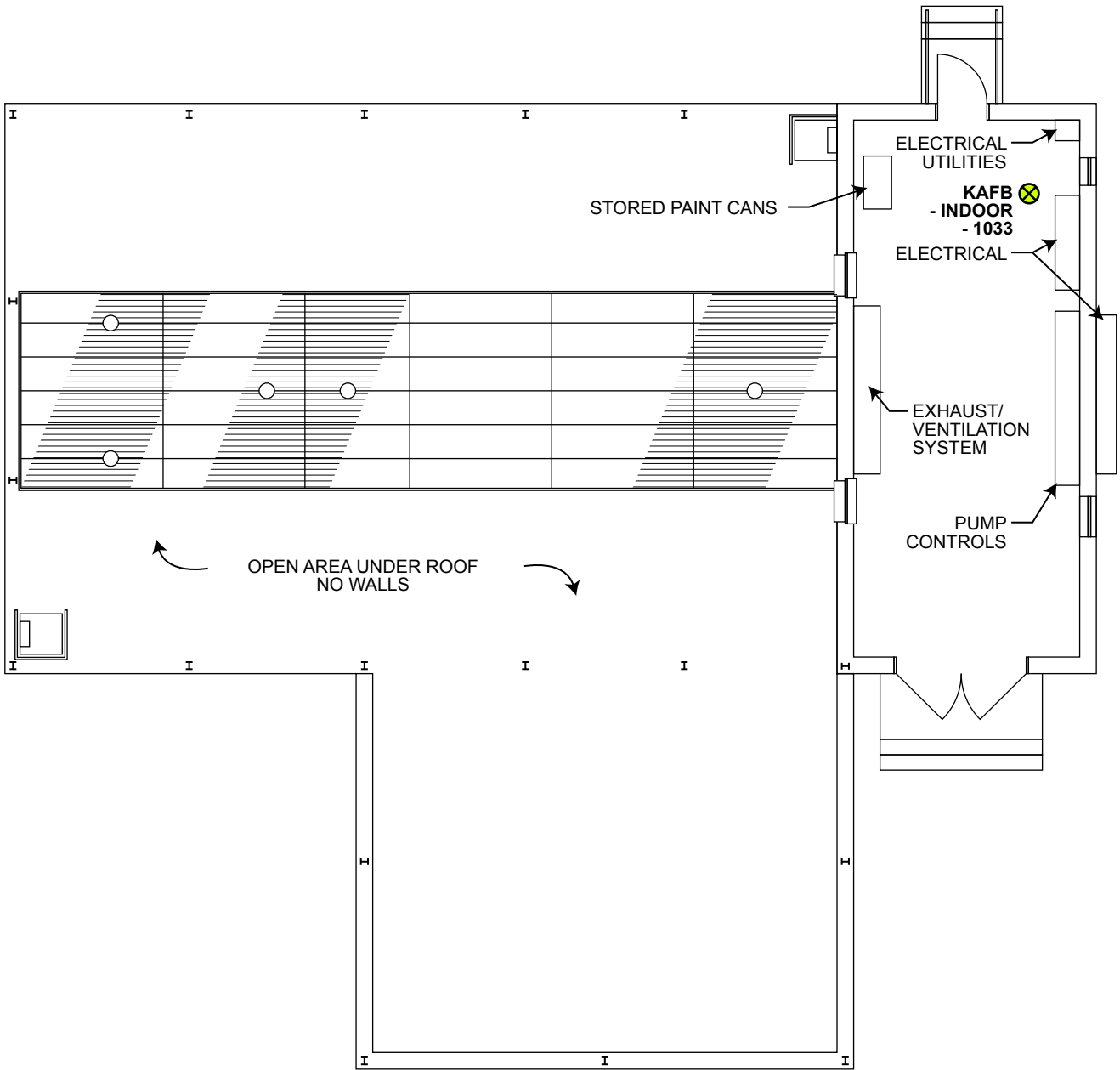


NOT TO SCALE


INDOOR AIR QUALITY WORK PLAN
 BULK FUELS FACILITY
 KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 2
 BUILDING 1032 FLOOR PLAN AND
 SAMPLING LOCATIONS

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 Sampling Location



NOT TO SCALE

INDOOR AIR QUALITY WORK PLAN
 BULK FUELS FACILITY
 KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 3
 BUILDING 1033 FLOOR PLAN AND
 SAMPLING LOCATION

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TABLE 1

**VOC Detections, July 2012 Indoor Air Sampling Event, Bulk Fuels Facility,
Kirtland Air Force Base, Albuquerque, New Mexico**

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Table 1
VOC Detections, July 2012 Indoor Air Sampling Event
Bulk Fuels Facility, Kirtland Air Force Base, Albuquerque, New Mexico

Parameter	Units	Carcino- genic Risk ^a	Noncancer Hazard Index ^a	KAFB-AMBIENT-1032			KAFB-AMBIENT-1033			KAFB-INDOOR-1026			KAFB-INDOOR-1033			KAFB-INDOOR-1032-1			KAFB-INDOOR-1032-2			KAFB-AIR-DUP		
				Sample ID	Sample Date	Result	Qual	MDL	Result	Qual	MDL	Result	Qual	MDL	Result	Qual	MDL	Result	Qual	MDL	Result	Qual	MDL	Result
1,2,4-TRIMETHYLBENZENE	µg/m3	NA	7.3	0.27	U	0.27	0.27	U	0.27	52		0.25	0.52	J	0.27	0.46	J	0.27	0.24	U	0.24	0.76	J	0.25
1,3,5-TRIMETHYLBENZENE	µg/m3	NA	NA	0.18	U	0.18	0.18	U	0.18	11		0.16	0.25	J	0.17	0.17	U	0.17	0.15	U	0.15	0.27	J	0.16
1,3-DIMETHYLBENZENE	µg/m3	NA	NA	0.9	J	0.21	0.28	J	0.21	26		0.2	0.39	J	0.21	1.1		0.21	1.4		0.19	6		0.2
2,2,4-TRIMETHYLPENTANE	µg/m3	NA	NA	12		0.53	0.53	U	0.53	35		0.49	0.52	U	0.52	8.6		0.52	5.8		0.46	7.5		0.49
2-BUTANONE	µg/m3	NA	5,200	1.3	J	0.13	0.82	J	0.13	4		0.12	5.9		0.12	2.2	J	0.12	4		0.11	2	J	0.12
4-METHYL-2-PENTANONE	µg/m3	NA	3,100	0.19	U	0.19	0.19	U	0.19	0.59	J	0.18	0.51	J	0.19	0.42	J	0.19	0.41	J	0.17	0.43	J	0.18
ACETONE	µg/m3	NA	32,000	9.1		0.15	6.9		0.15	16		0.13	13		0.14	14		0.14	22		0.13	19		0.13
BENZENE	µg/m3	0.31	31	8.8		0.015	0.53		0.015	23		0.014	0.67		0.015	6.4		0.015	5.3		0.013	5.8		0.014
BROMOMETHANE	µg/m3	NA	5.2	0.78	J	0.34	0.7	J	0.34	0.32	U	0.32	0.72	J	0.33	1.3	J	0.33	0.88	J	0.3	1.1	J	0.32
CARBON TETRACHLORIDE	µg/m3	0.41	100	0.33	J	0.21	0.42	J	0.21	0.39	J	0.19	0.46	J	0.2	0.41	J	0.2	0.44	J	0.18	0.42	J	0.19
CHLOROMETHANE	µg/m3	NA	94	0.9		0.14	1		0.14	0.88		0.13	1		0.13	1.3		0.13	1.3		0.12	1.2		0.13
DICHLORODIFLUOROMETHANE	µg/m3	NA	100	2		0.19	1.9		0.19	2.1		0.18	2.1		0.18	1.9		0.18	2		0.17	2.2		0.18
ERYTHRENE	µg/m3	NA	NA	1.4		0.18	0.18	U	0.18	4		0.16	0.17	U	0.17	1.3		0.17	0.94		0.15	1.2		0.16
ETHANOL	µg/m3	NA	NA	2.4		0.22	1.7	J	0.22	3.7		0.2	3.9		0.21	46		0.21	38		0.19	22		0.2
ETHYLBENZENE	µg/m3	0.97	1,000	0.44	J	0.2	0.2	U	0.2	14		0.19	0.2	J	0.2	0.33	J	0.2	0.74	J	0.18	1.8		0.19
FREON 113	µg/m3	NA	NA	0.42	U	0.42	0.67	J	0.42	0.48	J	0.39	0.41	U	0.41	0.45	J	0.41	0.63	J	0.37	0.53	J	0.39
HEPTANE	µg/m3	NA	NA	13		0.31	0.35	J	0.31	39		0.28	0.3	U	0.3	8.3		0.3	5.7		0.27	7.5		0.28
HEXANE	µg/m3	NA	730	10		0.14	0.54	J	0.14	34		0.13	0.34	J	0.13	7.7		0.13	7.3		0.12	6.7		0.13
ISOPROPANOL	µg/m3	NA	7,300	0.37	J	0.32	0.32	U	0.32	0.85	J	0.3	0.32	U	0.32	0.68	J	0.32	4.5		0.28	0.72	J	0.3
ISOPROPYLBENZENE	µg/m3	NA	420	0.27	U	0.27	0.27	U	0.27	5.4		0.25	0.26	U	0.26	0.26	U	0.26	0.23	U	0.23	0.25	U	0.25
METHYLENE CHLORIDE	µg/m3	96	630	0.52	J	0.24	0.29	J	0.24	0.9	J	0.22	0.29	J	0.23	0.93	J	0.23	4.2		0.21	0.33	J	0.22
N-PROPYLBENZENE	µg/m3	NA	1,000	0.24	U	0.24	0.24	U	0.24	11		0.22	0.24	U	0.24	0.24	U	0.24	0.21	U	0.21	0.3	J	0.22
O-XYLENE	µg/m3	NA	100	0.29	J	0.22	0.22	U	0.22	13		0.2	0.26	J	0.21	0.28	J	0.21	0.44	J	0.19	1.8		0.2
P-ETHYLTOLUENE	µg/m3	NA	NA	0.17	U	0.17	0.17	U	0.17	0.16	U	0.16	0.59	J	0.17	0.38	J	0.17	0.15	U	0.15	0.74	J	0.16
STYRENE	µg/m3	NA	1,000	0.21	U	0.21	0.21	U	0.21	0.98		0.19	5.4		0.2	0.2	U	0.2	0.18	U	0.18	0.19	U	0.19
TETRACHLOROETHENE	µg/m3	NA	NA	0.28	U	0.28	0.28	U	0.28	0.26	U	0.26	0.27	U	0.27	0.27	U	0.27	0.49	J	0.25	0.26	U	0.26
TETRAHYDROFURAN	µg/m3	NA	NA	0.48	U	0.48	0.48	U	0.48	0.44	U	0.44	1.5	J	0.47	0.51	J	0.47	0.55	J	0.42	0.76	J	0.44
TOLUENE	µg/m3	NA	5,200	10		0.16	0.84	J	0.16	37		0.15	0.82	J	0.16	6.5		0.16	14		0.14	11		0.15
TRICHLOROFLUOROMETHANE	µg/m3	NA	730	1.1	J	0.26	1.1	J	0.26	1.2	J	0.24	1.3		0.26	1.1	J	0.26	1.1	J	0.23	1.1	J	0.24

^aEPA, 2012. Regional Screening Level (RSL) Resident Air Supporting Table, April.

Shaded Cells = Result exceeds Carcinogenic Target Risk RSL for Resident Air.

Bold = Analyte was detected above the MDL.

µg/m3 = micrograms per cubic meter

Dup = Duplicate sample.

ID = Identification.

J = Estimated value; concentration is less than reporting limit but greater than laboratory MDL.

KAFB = Kirtland Air Force Base.

MDL = Method detection limit.

NA = Not applicable.

Qual = Qualifier.

U = Analyte was not detected.

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ATTACHMENT 1

Field Activity Daily Logs, Sample Collection Logs, and Chain-of-Custody Record

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FIELD ACTIVITY DAILY LOG

DAILY LOG	DATE	07	17	12
	NO.			
	SHEET	1	OF	5

PROJECT NAME: **KAFB BFF** PROJECT NO.: **140705**

FIELD ACTIVITY SUBJECT: **Indoor Air Evaluation**

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

- 0640 - Arrive at KAFB
- 0645 - Arrive at Project Trailer, sign JSA/Tailgate
- 0700 - Safety Meeting
- 0730 - Get equipment together
- 0735 - PID 2 (Shaw 70922), calibrated at 98
- 0745 - John S. gives a ride to BFF, sign into BFF
- 0750 - Start setting up ambient air samples, Diane A. approves 1 ambient sample for 1026 and 1032

Can 33864, regulator and cane 33864 for ambient 1026 and 1032, 24' cast
 Flow 11.5 mL/min regulator for 6L can
 Shut-In Test @ 0801, 1 min, prior to opening, 20 in Hg
 Start Time - 0806, Initial Pressure 25.5 in, sampling height 5'1", umbrella on can

Can 33937, regulator and cane 33937 for ambient 1033
 Flow 11.5 mL/min regulator for 6L can
 Shut-In Test @ 0816, 1 min, prior to opening, 20 in Hg
 Start Time - 0820, Initial Pressure 26 in, sampling height 5'0.5", umbrella on can

0825 - Start setting up indoor samples

Can 909, regulator and cane 909 for indoor 1032-1
 Flow 11.5 mL/min regulator for 6L can
 Shut-In Test @ 0829, 1 min, prior to opening, 20 in Hg
 Start Time - 0850

VISITORS ON SITE: <p style="text-align: center; font-size: 1.2em;">None</p>	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS: <p style="text-align: center;">1 ambient for 1026 and 1032</p>
--	--

WEATHER CONDITIONS: <p style="text-align: center;">Partly cloudy, slightly windy, 88°F</p>	IMPORTANT TELEPHONE CALLS: <p style="text-align: center;">Diane Agnew @ 0750</p>
---	---

SHAW E&I PERSONNEL ON SITE: Kimberly Kendall, Phil Osborn

SIGNATURE: *Phil Osborn* *Kimberly Kendall* DATE: 7/17/12

FIELD ACTIVITY DAILY LOG CONTINUATION SHEET

DAILY LOG	DATE	67	17	12
	NO.			
	SHEET	2 OF 5		

PROJECT NAME: KAFB BFF

PROJECT NO.: 140705

FIELD ACTIVITY SUBJECT: Indoor Air Evaluation

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

Can 940, regulator and cane 940 for indoor 1032-2, shower room
 Duplicate can 34429, regulator 34429 and cane 940, dup for 1032-2
 Flow 11.5 m³/min for 6L can
 Shut-In Test @ 0841, 1 min, prior to opening, 20 in Hg
 Start Time - 0846, Initial pressure 27.5 and 26.5, sampling height 5'

Can 5551, regulator and cane 5551 for indoor 1026
 Flow 11.5 m³/min for 6L can
 Shut-In Test @ 0854, 1 min, prior to opening, 20 in Hg
 Start Time - 0900, Initial pressure 26, sampling height 5'
 PID 0.4 - 0.5 ppm

Can 12693, regulator and cane 12693 for indoor 1033
 Flow 11.5 m³/min for 6L can
 Shut-In Test @ 0907, 1 min, prior to opening, 20 in Hg
 Start Time - 0910, Initial pressure 26, sampling height 5'

0913 - Observation and picture time

Ambient 1032, 1.8 mph wind, 24.83 in Hg, 83°F, 78°F, 37.5% humidity @ 0917
 Ambient 1033, 1.1 mph wind, 24.82 in Hg, 81°F, 33.2% humidity @ 0920
 Wind direction variable
 25.2%

- Photo 1 - NW - ambient 1033 setup
- Photo 2 - NE - indoor 1033 setup
- Photo 3 - N - indoor 1033 setup far
- Photo 4 - SW - ambient 1032 setup
- Photo 5 - SW - ambient 1032 setup far
- Photo 6 - NW - SVE system next to 1026, PID 3.0 ppm readings, propane exhaust
- Photo 7 - S - indoor 1032-1 setup
- Photo 8 - S - indoor 1032-2 setup with duplicate
- Photo 9 - W - indoor 1026 setup
- Photo 10 - NW - lab equipment + supplies at 1026

FIELD ACTIVITY DAILY LOG CONTINUATION SHEET

DAILY LOG	DATE	67	17	12
	NO.			
	SHEET	3 OF 5		

PROJECT NAME: KAPB BFF	PROJECT NO.: 140705
FIELD ACTIVITY SUBJECT: Indoor Air Evaluation	
DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:	
<p>All buildings, concrete block construction, concrete slab, single story 1032 at grade foundation 1026 48" above grade 1033 14" above grade</p> <p>No crawl spaces, no basements 1033 partially painted floor, no cracks in floor, no floor drains or sumps 1032-1 carpet 1032-2 drain by shower</p> <p>0951 - Check PID reading in Building 1032 garage 0.0 ppm, no ventilation in garage, one electric heater</p> <p>0954 - Observations of 1032-2, one floor drain, one shower drain, 0.0 ppm, no duct work at all, no exhaust fans, roof AC unit</p> <p style="padding-left: 40px;">@955, can 34429 - 23 1/2 in @956, can 940 - 24 1/2 in</p> <p>Gas water heater in bathroom, 0.0 ppm floor drain no duct work Office, 1 overhead AC vent, 2 electric wall heaters, no visible cracks</p> <p style="padding-left: 40px;">@958, can 909, 22 1/2 in @1000, can 33864, 20 1/2 in, ambient PID reading 0.4 ppm</p> <p>1001 - Building 1026 observations, painted floors?, tile in fuel hose room</p> <p style="padding-left: 40px;">@1001, can 5551, 23 1/2 in</p> <p>Fuel absorbent supplies in adjacent room, west door 1/2 in crack, not air tight, poorly sealed</p> <p>1007 - Building 1033 observations, outside 0.0 ppm on PID</p> <p style="padding-left: 40px;">@1008, can 12693, 24 in</p>	

FIELD ACTIVITY DAILY LOG CONTINUATION SHEET

DAILY LOG	DATE	07	17	12
	NO.			
	SHEET 4 OF 5			

PROJECT NAME: KAFB BFF	PROJECT NO.: 140705
FIELD ACTIVITY SUBJECT: Indoor Air Evaluation	
DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:	
<p>Cracks and gaps around door, Natural gas heating and AC, all doors closed today, east wall cracks</p> <p style="padding-left: 40px;">@ 1013, can 33937, 22 in</p> <p>1015 - Finish up observations, leave summa canisters to collect, all look like they are running correctly</p> <p>1019 - wind 3.3 mph from east, 85°F, 33.9% humidity, 24.82 in Hg</p> <p>1025 - Drive back to Shaw Trailer</p> <p>1100 - Lunch</p> <p>1200 - Arrive back on site, go to Shaw Trailer</p> <p>1232 - Drive out to BFF, check umbrellas / fix umbrellas</p> <p style="padding-left: 40px;">Ambient - 6 mph wind from NW, 85°F, 28.1% humidity, 24.78 in Hg @ 1236</p> <p style="padding-left: 40px;">@ 1238, can 940, 17 1/2 in</p> <p style="padding-left: 40px;">@ 1238, can 34429, 16 in</p> <p style="padding-left: 40px;">@ 1239, can 909, 15 1/2 in, fan now present in NE corner, on full blast</p> <p style="padding-left: 40px;">@ 1240, can 33864, 13 1/2 in</p> <p style="padding-left: 40px;">@ 1242, can 5551, 16 1/2 in, 0.6 ppm reading from PID</p> <p style="padding-left: 40px;">@ 1244, can 33937, 15 in</p> <p style="padding-left: 40px;">@ 1245, can 12693, 17 in</p> <p style="padding-left: 40px;">Building 1032, no PID hits from any piping in floor, all 0.0 ppm</p> <p>1255 - Decide to move ambient air canisters to more upgradient position, wind moved from east to northwest.</p> <p>1400 - Drive back to Shaw Trailer</p> <p>1530 - Drive back into BFF</p>	



Field Activity Daily Log Continuation Sheet

DATE	07	17	12
NO.			
SHEET	5	OF	5

Project Name: **KAFB BFF**

Project No. **140705**

Field Activity Subject: **Indoor Air Evaluation**

Description of Daily Activities and Events: **Indoor and Ambient Air Sampling**

- 1539 - wind 6 mph from NW , 90.3°F, 21.9% humidity , 24.72 in Hg
- 1607 - Collect Ambient air sample KAFB-Ambient-1032, Final Pressure 7.5 in
- 1620 - Collect Ambient air sample KAFB-Ambient-1033, Final Pressure 8.0 in
- 1653 - Collect Indoor air sample KAFB-Indoor-1032-1, Final Pressure 7.5 in
- 1703 - Collect Indoor air sample KAFB-1026, Final Pressure 8.0 in
- 1712 - Collect Indoor air sample KAFB-Indoor-1033, Final Pressure 8.0 in
- 1715 - Collect Indoor air sample KAFB-Indoor-1032-2 and Duplicate sample KAFB-Air-Dup, Final Pressure 8.5 in and 7.0 in
- 1720 - Pack up equipment into truck
- 1730 - Drive to Shaw Trailer
- 1735 - Finish paperwork and make copies
- 1745 - Leave site

Kimberly Dandel 7/17/12

METAL PIPING FROM GROUND TO BUILDING

ELECTRICAL

LOCKERS LABELED
"LAB SUPPLIES"

DRUMS

SLIDING DOOR



LEGEND

⊗ Proposed Sampling Location

Indoor Air Guys
Nate, Nick, Travis
846-1066

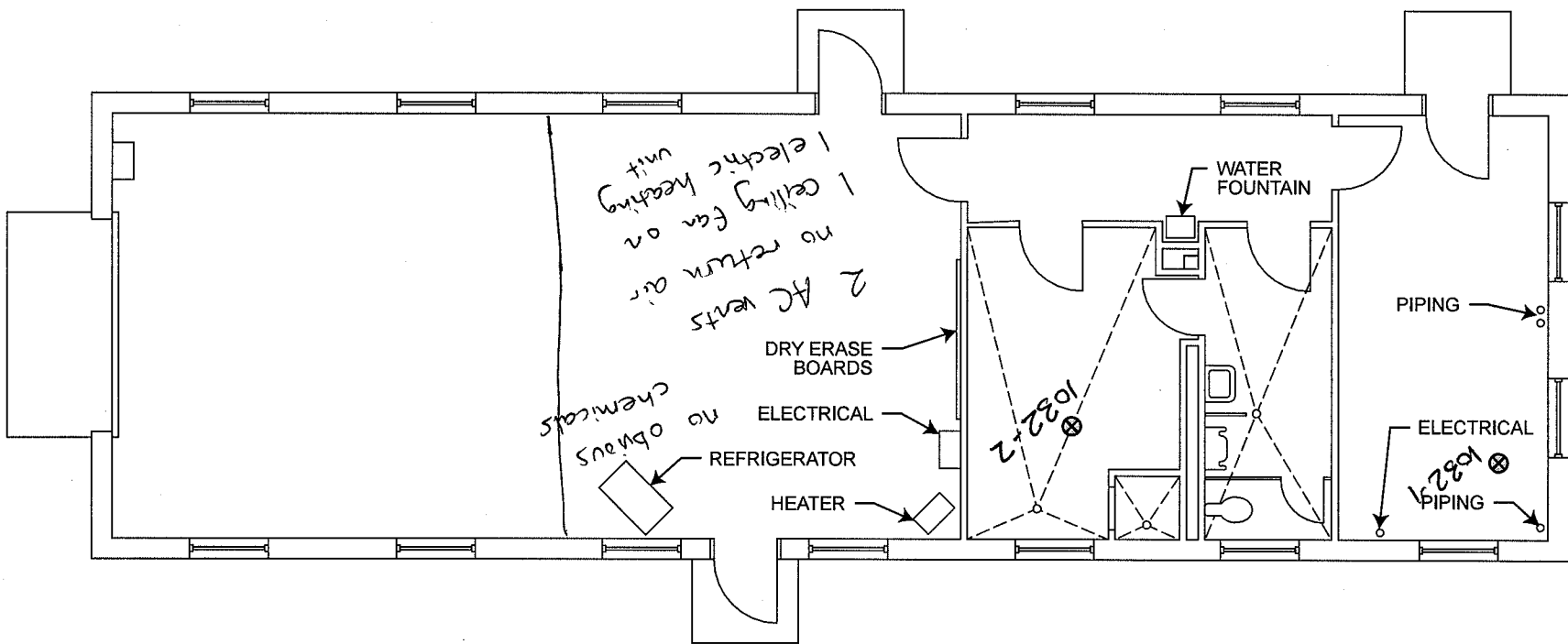
N



NOT TO SCALE

INDOOR AIR QUALITY WORK PLAN
BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 5-1
BUILDING 1026 FLOOR PLAN AND
PROPOSED SAMPLING LOCATION



LEGEND

⊗ Proposed Sampling Location

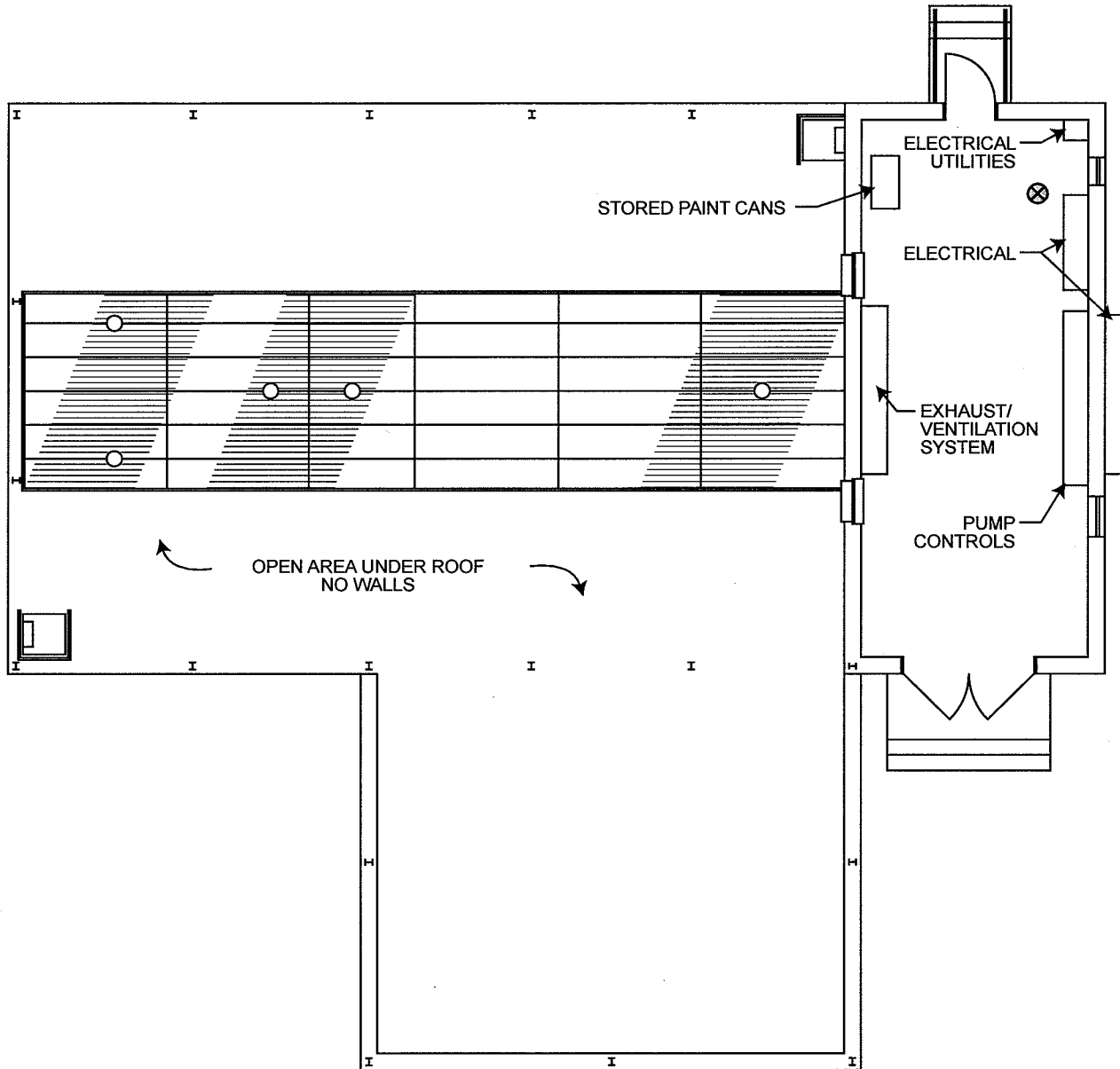
N



NOT TO SCALE

INDOOR AIR QUALITY WORK PLAN
 BULK FUELS FACILITY
 KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 5-2
 BUILDING 1032 FLOOR PLAN AND
 PROPOSED SAMPLING LOCATION



LEGEND

⊗ Proposed Sampling Location



NOT TO SCALE

INDOOR AIR QUALITY WORK PLAN
 BULK FUELS FACILITY
 KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 5-3
 BUILDING 1033 FLOOR PLAN AND
 PROPOSED SAMPLING LOCATION

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Diane Agnew
 Collected by: (Print and Sign) Kimberly Kendall
 Company Shaw Environmental Email kimberly.kendall@shawenv.com
 Address 2440 Louisiana NE City Albuquerque State NM Zip 87110
 Phone 505-262-8750 Fax 505-262-8855

Project Info:		Turn Around Time:	Lab Use Only Pressurized by: Date: Pressurization Gas: N ₂ He
P.O. # <u>794938</u>	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>		
Project # <u>140705</u>			
Project Name <u>KAFB BFP</u>			

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
	KAFB - Ambient - 1032	33864	7/17/12	Start 0806 End 1607	TO-15 LL	25.5	7.5		
	KAFB - Ambient - 1033	33937	7/17/12	Start 0820 End 1620	TO-15 LL	26	8.0		
	KAFB - Indoor - 1032-1	909	7/17/12	Start 0858 End 1653	TO-15 LL	25.5	7.5		
	KAFB - Indoor - 1032-2	940	7/17/12	Start 0846 End 1715	TO-15 LL	27.5	8.5		
	KAFB - Indoor - 1026	5551	7/17/12	Start 0900 End 1703	TO-15 LL	26	8.0		
	KAFB - Indoor - 1033	12693	7/17/12	Start 0910 End 1712	TO-15 LL	26	8.0		
	KAFB - Air - Dup	34429	7/17/12	Start 0800 End 1600	TO-15 LL	26.5	7.0		

Relinquished by: (signature) <u>Kim Kendall</u> Date/Time <u>7/17/12 1800</u>	Received by: (signature) _____ Date/Time _____	Notes:
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
					Yes No None	

Ref: 86134
Dep:

Date: 13Jul12
Wgt: 2.00 LBS
DV:

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Svc: ** 2DAY ** Master 4080 5036 5859
TRK: 4080 5036 5859

Ref:
Dep:

Date: 13Jul12
Wgt: 37.00 LBS
DV:

SHIPPING: 0.00
SPECIAL:
HANDLING:
TOTAL:

Svc: ** 2DAY ** Master 4080 5036 5859
TRK: 4080 5036 5870

0.00
0.00
0.00
0.00

Ref: 86134
Dep:

Date: 13Jul12
Wgt: 37.00 LBS
DV:

SHIPPING: 0.00
SPECIAL:
HANDLING:
TOTAL:

Svc: ** 2DAY ** Master 4080 5036 5859
TRK: 4080 5036 5860

0.00
0.00
0.00
0.00



Air Field Logsheet

Site Name: KAFB BFF

Project #: 140705

Sample ID: KAFB - Ambient - 1033	Sample Location Sketch: N/A
Date Sampled: 7/17/12	
Time Sampled: Start 0820 End 1620	
Sampling Technique: Summa Canister	
Analyses:	
To - 15 LL	
	Photograph Log #: Photo 1
Weather: Sunny - morning, Partly cloudy - afternoon	
Temperature: 80s °F	
Sampling Equipment: Summa Canister and 8hr regulator with sampling cane	
Equipment Decon Technique: N/A	
QC Samples: N/A	
Analytical Laboratory: Eurofins Air Toxics	
Comments: N/A	
Field Technician: (Print) Kimberly Kendall	Date: 7/17/12
<div style="text-align: right; margin-right: 50px;"> </div>	



Air Field Logsheet

Site Name: KAFB BFF

Project #: 140705

Sample ID: KAFB - Indoor - 1032-2	Sample Location Sketch: <div style="text-align: center; font-size: 1.5em;">N/A</div>
Date Sampled: 7/17/12	
Time Sampled: Start 0846 End 1715	
Sampling Technique: Summa Canister	
Analyses:	
Initial Pressure 27.5	
Final Pressure 8.5	
Field Reading	Calibration Date
TD-15 LL	Calibrated by Lab
Photograph Log #: Photo 8	
Weather: Sunny - morning, Partly cloudy - afternoon	
Temperature: 80s °F	
Sampling Equipment: Summa Canister and 8hr regulator with sampling cone	
Equipment Decon Technique: N/A	
QC Samples: Duplicate sample KAFB - Air - Dup	
Analytical Laboratory: Eurofins Air Toxics	
Comments: N/A	
Field Technician: (Print) Kimberly Kendall <i>Kimberly Kendall</i>	Date: 7/17/12

KAFB BFF



Air Field Logsheet

Site Name: **KAFB BFF**

Project #: **140705**

Sample ID: KAFB - Indoor - 1026	Sample Location Sketch: <div style="text-align: center; font-size: 1.2em;">N/A</div>									
Date Sampled: 7/17/12										
Time Sampled: Start 0900 End 1703										
Sampling Technique: Summa Canister										
Analyses:										
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 50%; padding: 5px;">TO-15 LL</td><td style="width: 50%;"></td></tr><tr><td style="height: 20px;"></td><td></td></tr><tr><td style="height: 20px;"></td><td></td></tr></table>		TO-15 LL								
TO-15 LL										
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 50%; padding: 5px;">Field Reading</th><th style="width: 50%; padding: 5px;">Calibration Date</th></tr></thead><tbody><tr><td style="padding: 5px;">Initial Pressure 26</td><td style="padding: 5px;">Calibrated by Lab</td></tr><tr><td style="padding: 5px;">Final Pressure 8.0</td><td></td></tr><tr><td style="height: 20px;"></td><td></td></tr><tr><td style="height: 20px;"></td><td></td></tr></tbody></table>	Field Reading	Calibration Date	Initial Pressure 26	Calibrated by Lab	Final Pressure 8.0					
Field Reading	Calibration Date									
Initial Pressure 26	Calibrated by Lab									
Final Pressure 8.0										
Photograph Log #: Photo 9										
Weather: Sunny - morning, Partly cloudy - afternoon										
Temperature: 80s °F										
Sampling Equipment: Summa Canister and 8hr regulator with sampling case										
Equipment Decon Technique: N/A										
QC Samples: N/A										
Analytical Laboratory: Eurofins Air Toxics										
Comments: N/A										
Field Technician: (Print) Kimberly Kendall <i>Kimberly Kendall</i>										
Date: 7/17/12										



Air Field Logsheet

Site Name: KAFB BFF

Project #: 140705

Sample ID: KAFB-Indoor-1033	Sample Location Sketch: N/A
Date Sampled: 7/17/12	
Time Sampled: Start 0910 End 1712	
Sampling Technique: Summa Canister	
Analyses:	
TO-15 LL	
	Photograph Log #: Photo 2 + 3
Weather: Sunny-morning, Partly cloudy - afternoon	
Temperature: 80s °F	
Sampling Equipment: Summa Canister and 8hr regulator with sampling cane	
Equipment Decon Technique: N/A	
QC Samples: N/A	
Analytical Laboratory: Eurofins Air Toxics	
Comments: N/A	
Field Technician: (Print) Kimberly Kendall <i>Kimberly Kendall</i>	Date: 7/17/12



Photo 1

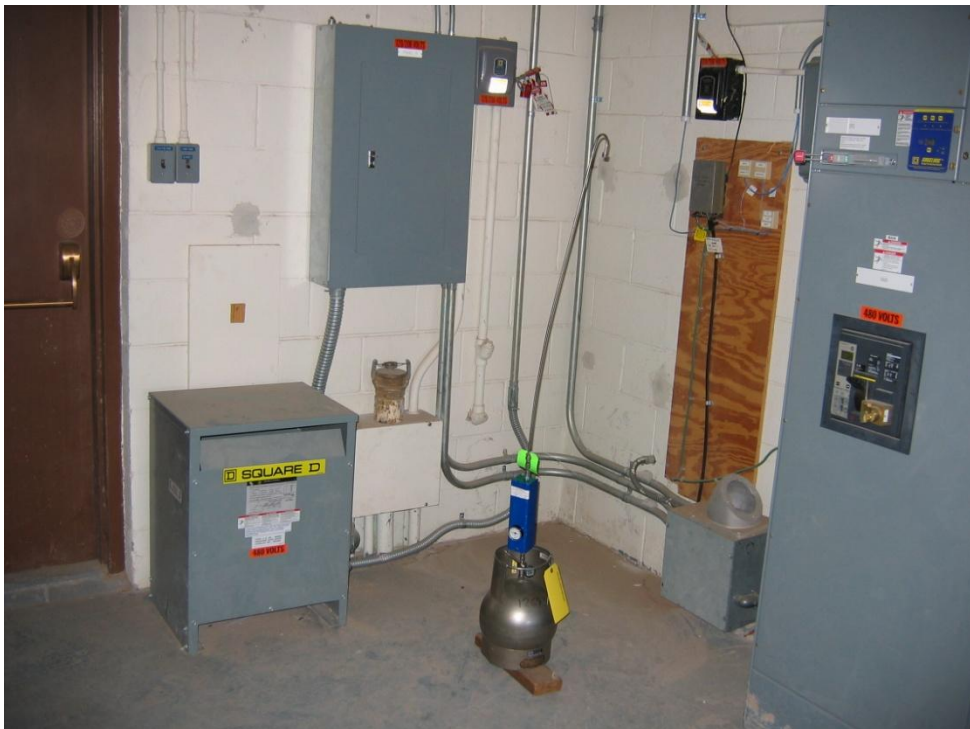


Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10

ATTACHMENT 2

Laboratory Analytical Data Package

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8/9/2012

Ms. Kimberly Kendall
Shaw Environmental & Infrastructure
2400 Louisiana Blvd. NE
Suite 300 AFC #5
Albuquerque NM 87110

Project Name: KAFB BFF
Project #: 140705
Workorder #: 1207441

Dear Ms. Kimberly Kendall

The following report includes the data for the above referenced project for sample(s) received on 7/20/2012 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner
Project Manager

WORK ORDER #: 1207441

Work Order Summary

CLIENT:	Ms. Kimberly Kendall Shaw Environmental & Infrastructure 2400 Louisiana Blvd. NE Suite 300 AFC #5 Albuquerque, NM 87110	BILL TO:	Baton Rouge Accounts Payable Shaw Environmental & Infrastructure P.O. Box 98519 Baton Rouge, LA 70884
PHONE:		P.O. #	794938
FAX:		PROJECT #	140705 KAFB BFF
DATE RECEIVED:	07/20/2012	CONTACT:	Kelly Buettner
DATE COMPLETED:	08/09/2012		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	KAFB-Ambient-1032	Modified TO-15	12.5 "Hg	5 psi
01B	KAFB-Ambient-1032	Modified TO-15	12.5 "Hg	5 psi
02A	KAFB-Ambient-1033	Modified TO-15	12.5 "Hg	5 psi
02B	KAFB-Ambient-1033	Modified TO-15	12.5 "Hg	5 psi
03A	KAFB-Indoor-1032-1	Modified TO-15	12.0 "Hg	5 psi
03AA	KAFB-Indoor-1032-1 Lab Duplicate	Modified TO-15	12.0 "Hg	5 psi
03B	KAFB-Indoor-1032-1	Modified TO-15	12.0 "Hg	5 psi
03BB	KAFB-Indoor-1032-1 Lab Duplicate	Modified TO-15	12.0 "Hg	5 psi
04A	KAFB-Indoor-1032-2	Modified TO-15	10.0 "Hg	5 psi
04B	KAFB-Indoor-1032-2	Modified TO-15	10.0 "Hg	5 psi
05A	KAFB-Indoor-1026	Modified TO-15	11.0 "Hg	5 psi
05B	KAFB-Indoor-1026	Modified TO-15	11.0 "Hg	5 psi
06A	KAFB-Indoor-1033	Modified TO-15	12.0 "Hg	5 psi
06B	KAFB-Indoor-1033	Modified TO-15	12.0 "Hg	5 psi
07A	KAFB-Air-Dup	Modified TO-15	11.0 "Hg	5 psi
07B	KAFB-Air-Dup	Modified TO-15	11.0 "Hg	5 psi
08A	Lab Blank	Modified TO-15	NA	NA
08B	Lab Blank	Modified TO-15	NA	NA
09A	CCV	Modified TO-15	NA	NA
09B	CCV	Modified TO-15	NA	NA
10A	LCS	Modified TO-15	NA	NA
10AA	LCS	Modified TO-15	NA	NA
10B	LCS	Modified TO-15	NA	NA

Continued on next page

WORK ORDER #: 1207441

Work Order Summary

CLIENT:	Ms. Kimberly Kendall Shaw Environmental & Infrastructure 2400 Louisiana Blvd. NE Suite 300 AFC #5 Albuquerque, NM 87110	BILL TO:	Baton Rouge Accounts Payable Shaw Environmental & Infrastructure P.O. Box 98519 Baton Rouge, LA 70884
PHONE:		P.O. #	794938
FAX:		PROJECT #	140705 KAFB BFF
DATE RECEIVED:	07/20/2012	CONTACT:	Kelly Buettner
DATE COMPLETED:	08/09/2012		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
10BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 
 Technical Director

DATE: 08/09/12

Certification numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089, NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
 Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
 Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards
 This report shall not be reproduced, except in full, without the written approval of Eurofins | Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Shaw Environmental & Infrastructure
Workorder# 1207441

Seven 6 Liter Summa Canister (100% Certified) samples were received on July 20, 2012. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+/- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

As per project specific client request the laboratory has reported estimated values for target compound

hits that are below the Reporting Limit but greater than the Method Detection Limit. All The canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

Due to the linear calibration range of the instrument, the reporting limit for Bromomethane was raised from 0.10ppbv to 0.50ppbv.

The reported result for 4-Ethyltoluene in samples KAFB-Indoor-1032-1 and KAFB-Indoor-1033 may be biased high due to co-elution with a non target compound with similar characteristic ions. Both the primary and secondary ion for 4-Ethyltoluene exhibited potential interference.

The RPD of duplicate samples KAFB-Indoor-1032-1 and KAFB-Indoor-1032-1 Lab Duplicate exceeded acceptance limits for some target species due to target compound concentrations present at less than 5X the reporting limit. There is no effect on data quality.

Benzene was manually integrated in Laboratory Blank.

Freon 12 was manually integrated in samples KAFB-Ambient-1032 and KAFB-Indoor-1032-1.

Bromomethane was manually integrated in sample KAFB-Indoor-1032-1.

Freon 12 was manually integrated in the Initial Calibration.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV and/or LCS.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1032	Date/Time Analyzed:	8/7/12 04:38 PM
Lab ID:	1207441-01A	Dilution Factor:	2.30
Date/Time Collecte	7/17/12 04:07 PM	Instrument/Filename:	msde.i / e080710
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.19	0.63	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.32	0.79	1.6	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.22	0.63	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.17	0.46	0.93	Not Detected U
1,1-Dichloroethene	75-35-4	0.26	0.73	0.91	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	0.26	1.4	8.5	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.27	0.56	1.1	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.29	0.69	1.4	Not Detected U
1,2-Dichloroethane	107-06-2	0.20	0.46	0.93	Not Detected U
1,2-Dichloropropane	78-87-5	0.22	0.53	1.1	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.18	0.56	1.1	Not Detected U
1,3-Butadiene	106-99-0	0.18	0.25	0.51	1.4
1,3-Dichlorobenzene	541-73-1	0.34	0.69	1.4	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.36	0.69	1.4	Not Detected U
1,4-Dioxane	123-91-1	0.28	0.66	0.83	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.53	0.86	5.4	12
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.13	0.54	3.4	1.3 J
2-Hexanone	591-78-6	0.31	0.75	4.7	Not Detected U
2-Propanol	67-63-0	0.32	0.45	2.8	0.37 J
3-Chloropropene	107-05-1	0.20	0.58	3.6	Not Detected U
4-Ethyltoluene	622-96-8	0.17	0.56	1.1	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.19	0.75	0.94	Not Detected U



MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.15	0.44	2.7	9.1
alpha-Chlorotoluene	100-44-7	0.28	0.60	1.2	Not Detected U
Bromodichloromethane	75-27-4	0.20	0.77	1.5	Not Detected U
Bromoform	75-25-2	0.29	1.2	2.4	Not Detected U
Bromomethane	74-83-9	0.34	0.45	4.5	0.78 J
Carbon Disulfide	75-15-0	1.1	1.1	3.6	Not Detected U
Carbon Tetrachloride	56-23-5	0.21	0.72	1.4	0.33 J
Chlorobenzene	108-90-7	0.25	0.53	1.0	Not Detected U
Chloroethane	75-00-3	0.22	0.30	3.0	Not Detected U
Chloroform	67-66-3	0.27	0.56	1.1	Not Detected U
Chloromethane	74-87-3	0.14	0.24	0.47	0.90
cis-1,2-Dichloroethene	156-59-2	0.28	0.46	0.91	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.15	0.52	1.0	Not Detected U
Cumene	98-82-8	0.27	0.56	1.1	Not Detected U
Dibromochloromethane	124-48-1	0.42	0.98	2.0	Not Detected U
Ethanol	64-17-5	0.22	1.0	2.2	2.4
Ethyl Benzene	100-41-4	0.20	0.50	1.0	0.44 J
Freon 11	75-69-4	0.26	0.65	1.3	1.1 J
Freon 113	76-13-1	0.42	0.88	1.8	Not Detected U
Freon 114	76-14-2	0.40	0.80	1.6	Not Detected U
Freon 12	75-71-8	0.19	0.57	1.1	2.0
Heptane	142-82-5	0.31	0.75	0.94	13

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1032	Date/Time Analyzed:	8/7/12 04:38 PM
Lab ID:	1207441-01A	Dilution Factor:	2.30
Date/Time Collecte	7/17/12 04:07 PM	Instrument/Filename:	msde.i / e080710
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.91	2.0	12	Not Detected U
Hexane	110-54-3	0.14	0.40	0.81	10
m,p-Xylene	108-38-3	0.21	0.50	1.0	0.90 J
Methyl tert-butyl ether	1634-04-4	0.24	0.41	0.83	Not Detected U
Methylene Chloride	75-09-2	0.24	0.40	1.6	0.52 J
o-Xylene	95-47-6	0.22	0.50	1.0	0.29 J
Propylbenzene	103-65-1	0.24	0.56	1.1	Not Detected U
Styrene	100-42-5	0.21	0.49	0.98	Not Detected U
Tetrachloroethene	127-18-4	0.28	0.78	1.6	Not Detected U
Tetrahydrofuran	109-99-9	0.48	0.54	3.4	Not Detected U
Toluene	108-88-3	0.16	0.43	0.87	10
trans-1,2-Dichloroethene	156-60-5	0.30	0.73	0.91	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.24	0.52	1.0	Not Detected U
Trichloroethene	79-01-6	0.40	0.62	1.2	Not Detected U
Vinyl Chloride	75-01-4	0.18	0.29	0.59	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	98

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1032	Date/Time Analyzed:	8/7/12 04:38 PM
Lab ID:	1207441-01A	Dilution Factor:	2.30
Date/Time Collecte	7/17/12 04:07 PM	Instrument/Filename:	msde.i / e080710
Media:	6 Liter Summa Canister (100% Certified)		

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	80-120	99
Toluene-d8	2037-26-5	80-116	96

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1032	Date/Time Analyzed:	8/7/12 04:38 PM
Lab ID:	1207441-01B	Dilution Factor:	2.30
Date/Time Collecte	7/17/12 04:07 PM	Instrument/Filename:	msde.i / e080710sim
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.028	NA	0.35	Not Detected U
Benzene	71-43-2	0.015	0.022	0.37	8.8

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	103
4-Bromofluorobenzene	460-00-4	80-120	103
Toluene-d8	2037-26-5	80-116	98

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033	Date/Time Analyzed:	8/7/12 05:28 PM
Lab ID:	1207441-02A	Dilution Factor:	2.30
Date/Time Collecte	7/17/12 04:20 PM	Instrument/Filename:	msde.i / e080711
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.19	0.63	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.32	0.79	1.6	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.22	0.63	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.17	0.46	0.93	Not Detected U
1,1-Dichloroethene	75-35-4	0.26	0.73	0.91	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	0.26	1.4	8.5	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.27	0.56	1.1	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.29	0.69	1.4	Not Detected U
1,2-Dichloroethane	107-06-2	0.20	0.46	0.93	Not Detected U
1,2-Dichloropropane	78-87-5	0.22	0.53	1.1	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.18	0.56	1.1	Not Detected U
1,3-Butadiene	106-99-0	0.18	0.25	0.51	Not Detected U
1,3-Dichlorobenzene	541-73-1	0.34	0.69	1.4	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.36	0.69	1.4	Not Detected U
1,4-Dioxane	123-91-1	0.28	0.66	0.83	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.53	0.86	5.4	Not Detected U
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.13	0.54	3.4	0.82 J
2-Hexanone	591-78-6	0.31	0.75	4.7	Not Detected U
2-Propanol	67-63-0	0.32	0.45	2.8	Not Detected U
3-Chloropropene	107-05-1	0.20	0.58	3.6	Not Detected U
4-Ethyltoluene	622-96-8	0.17	0.56	1.1	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.19	0.75	0.94	Not Detected U



MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.15	0.44	2.7	6.9
alpha-Chlorotoluene	100-44-7	0.28	0.60	1.2	Not Detected U
Bromodichloromethane	75-27-4	0.20	0.77	1.5	Not Detected U
Bromoform	75-25-2	0.29	1.2	2.4	Not Detected U
Bromomethane	74-83-9	0.34	0.45	4.5	0.70 J
Carbon Disulfide	75-15-0	1.1	1.1	3.6	1.2 J
Carbon Tetrachloride	56-23-5	0.21	0.72	1.4	0.42 J
Chlorobenzene	108-90-7	0.25	0.53	1.0	Not Detected U
Chloroethane	75-00-3	0.22	0.30	3.0	Not Detected U
Chloroform	67-66-3	0.27	0.56	1.1	Not Detected U
Chloromethane	74-87-3	0.14	0.24	0.47	1.0
cis-1,2-Dichloroethene	156-59-2	0.28	0.46	0.91	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.15	0.52	1.0	Not Detected U
Cumene	98-82-8	0.27	0.56	1.1	Not Detected U
Dibromochloromethane	124-48-1	0.42	0.98	2.0	Not Detected U
Ethanol	64-17-5	0.22	1.0	2.2	1.7 J
Ethyl Benzene	100-41-4	0.20	0.50	1.0	Not Detected U
Freon 11	75-69-4	0.26	0.65	1.3	1.1 J
Freon 113	76-13-1	0.42	0.88	1.8	0.67 J
Freon 114	76-14-2	0.40	0.80	1.6	Not Detected U
Freon 12	75-71-8	0.19	0.57	1.1	1.9
Heptane	142-82-5	0.31	0.75	0.94	0.35 J

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033	Date/Time Analyzed:	8/7/12 05:28 PM
Lab ID:	1207441-02A	Dilution Factor:	2.30
Date/Time Collecte	7/17/12 04:20 PM	Instrument/Filename:	msde.i / e080711
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.91	2.0	12	Not Detected U
Hexane	110-54-3	0.14	0.40	0.81	0.54 J
m,p-Xylene	108-38-3	0.21	0.50	1.0	0.28 J
Methyl tert-butyl ether	1634-04-4	0.24	0.41	0.83	Not Detected U
Methylene Chloride	75-09-2	0.24	0.40	1.6	0.29 J
o-Xylene	95-47-6	0.22	0.50	1.0	Not Detected U
Propylbenzene	103-65-1	0.24	0.56	1.1	Not Detected U
Styrene	100-42-5	0.21	0.49	0.98	Not Detected U
Tetrachloroethene	127-18-4	0.28	0.78	1.6	Not Detected U
Tetrahydrofuran	109-99-9	0.48	0.54	3.4	Not Detected U
Toluene	108-88-3	0.16	0.43	0.87	0.84 J
trans-1,2-Dichloroethene	156-60-5	0.30	0.73	0.91	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.24	0.52	1.0	Not Detected U
Trichloroethene	79-01-6	0.40	0.62	1.2	Not Detected U
Vinyl Chloride	75-01-4	0.18	0.29	0.59	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	102

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033	Date/Time Analyzed:	8/7/12 05:28 PM
Lab ID:	1207441-02A	Dilution Factor:	2.30
Date/Time Collecte	7/17/12 04:20 PM	Instrument/Filename:	msde.i / e080711
Media:	6 Liter Summa Canister (100% Certified)		

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	80-120	106
Toluene-d8	2037-26-5	80-116	99

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033	Date/Time Analyzed:	8/7/12 05:28 PM
Lab ID:	1207441-02B	Dilution Factor:	2.30
Date/Time Collecte	7/17/12 04:20 PM	Instrument/Filename:	msde.i / e080711sim
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.028	NA	0.35	Not Detected U
Benzene	71-43-2	0.015	0.022	0.37	0.53

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	103
4-Bromofluorobenzene	460-00-4	80-120	104
Toluene-d8	2037-26-5	80-116	96

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1	Date/Time Analyzed:	8/7/12 06:12 PM
Lab ID:	1207441-03A	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 04:53 PM	Instrument/Filename:	msde.i / e080712
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.18	0.61	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.31	0.76	1.5	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.21	0.61	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.17	0.45	0.90	Not Detected U
1,1-Dichloroethene	75-35-4	0.26	0.71	0.88	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	0.25	1.3	8.3	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.27	0.55	1.1	0.46 J
1,2-Dichlorobenzene	95-50-1	0.28	0.67	1.3	Not Detected U
1,2-Dichloroethane	107-06-2	0.20	0.45	0.90	Not Detected U
1,2-Dichloropropane	78-87-5	0.22	0.52	1.0	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.17	0.55	1.1	Not Detected U
1,3-Butadiene	106-99-0	0.17	0.25	0.49	1.3
1,3-Dichlorobenzene	541-73-1	0.33	0.67	1.3	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.35	0.67	1.3	Not Detected U
1,4-Dioxane	123-91-1	0.28	0.64	0.80	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.52	0.83	5.2	8.6
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.12	0.53	3.3	2.2 J
2-Hexanone	591-78-6	0.30	0.73	4.6	Not Detected U
2-Propanol	67-63-0	0.32	0.44	2.7	0.68 J
3-Chloropropene	107-05-1	0.19	0.56	3.5	Not Detected U
4-Ethyltoluene	622-96-8	0.17	0.55	1.1	0.38 J
4-Methyl-2-pentanone	108-10-1	0.19	0.73	0.91	0.42 J

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1	Date/Time Analyzed:	8/7/12 06:12 PM
Lab ID:	1207441-03A	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 04:53 PM	Instrument/Filename:	msde.i / e080712
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.14	0.42	2.6	14
alpha-Chlorotoluene	100-44-7	0.28	0.58	1.2	Not Detected U
Bromodichloromethane	75-27-4	0.19	0.75	1.5	Not Detected U
Bromoform	75-25-2	0.28	1.2	2.3	Not Detected U
Bromomethane	74-83-9	0.33	0.43	4.3	1.3 J
Carbon Disulfide	75-15-0	1.1	1.1	3.5	Not Detected U
Carbon Tetrachloride	56-23-5	0.20	0.70	1.4	0.41 J
Chlorobenzene	108-90-7	0.24	0.51	1.0	Not Detected U
Chloroethane	75-00-3	0.21	0.29	2.9	Not Detected U
Chloroform	67-66-3	0.26	0.54	1.1	Not Detected U
Chloromethane	74-87-3	0.13	0.23	0.46	1.3
cis-1,2-Dichloroethene	156-59-2	0.27	0.44	0.88	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.15	0.50	1.0	Not Detected U
Cumene	98-82-8	0.26	0.55	1.1	Not Detected U
Dibromochloromethane	124-48-1	0.40	0.95	1.9	Not Detected U
Ethanol	64-17-5	0.21	1.0	2.1	46
Ethyl Benzene	100-41-4	0.20	0.48	0.97	0.33 J
Freon 11	75-69-4	0.26	0.63	1.2	1.1 J
Freon 113	76-13-1	0.41	0.85	1.7	0.45 J
Freon 114	76-14-2	0.39	0.78	1.6	Not Detected U
Freon 12	75-71-8	0.18	0.55	1.1	1.9
Heptane	142-82-5	0.30	0.73	0.91	8.3

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1	Date/Time Analyzed:	8/7/12 06:12 PM
Lab ID:	1207441-03A	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 04:53 PM	Instrument/Filename:	msde.i / e080712
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.88	1.9	12	Not Detected U
Hexane	110-54-3	0.13	0.39	0.78	7.7
m,p-Xylene	108-38-3	0.21	0.48	0.97	1.1
Methyl tert-butyl ether	1634-04-4	0.23	0.40	0.80	Not Detected U
Methylene Chloride	75-09-2	0.23	0.39	1.5	0.93 J
o-Xylene	95-47-6	0.21	0.48	0.97	0.28 J
Propylbenzene	103-65-1	0.24	0.55	1.1	Not Detected U
Styrene	100-42-5	0.20	0.47	0.95	Not Detected U
Tetrachloroethene	127-18-4	0.27	0.76	1.5	Not Detected U
Tetrahydrofuran	109-99-9	0.47	0.53	3.3	0.51 J
Toluene	108-88-3	0.16	0.42	0.84	6.5
trans-1,2-Dichloroethene	156-60-5	0.29	0.71	0.88	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.23	0.50	1.0	Not Detected U
Trichloroethene	79-01-6	0.38	0.60	1.2	Not Detected U
Vinyl Chloride	75-01-4	0.18	0.28	0.57	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	100

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1	Date/Time Analyzed:	8/7/12 06:12 PM
Lab ID:	1207441-03A	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 04:53 PM	Instrument/Filename:	msde.i / e080712
Media:	6 Liter Summa Canister (100% Certified)		

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	80-120	100
Toluene-d8	2037-26-5	80-116	98



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1 Lab Duplicate	Date/Time Analyzed:	8/7/12 07:01 PM
Lab ID:	1207441-03AA	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 04:53 PM	Instrument/Filename:	msde.i / e080713
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.18	0.61	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.31	0.76	1.5	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.21	0.61	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.17	0.45	0.90	Not Detected U
1,1-Dichloroethene	75-35-4	0.26	0.71	0.88	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	0.25	1.3	8.3	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.27	0.55	1.1	0.45 J
1,2-Dichlorobenzene	95-50-1	0.28	0.67	1.3	Not Detected U
1,2-Dichloroethane	107-06-2	0.20	0.45	0.90	Not Detected U
1,2-Dichloropropane	78-87-5	0.22	0.52	1.0	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.17	0.55	1.1	0.19 J
1,3-Butadiene	106-99-0	0.17	0.25	0.49	1.1
1,3-Dichlorobenzene	541-73-1	0.33	0.67	1.3	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.35	0.67	1.3	Not Detected U
1,4-Dioxane	123-91-1	0.28	0.64	0.80	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.52	0.83	5.2	7.8
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.12	0.53	3.3	2.1 J
2-Hexanone	591-78-6	0.30	0.73	4.6	0.44 J
2-Propanol	67-63-0	0.32	0.44	2.7	0.61 J
3-Chloropropene	107-05-1	0.19	0.56	3.5	Not Detected U
4-Ethyltoluene	622-96-8	0.17	0.55	1.1	0.34 J
4-Methyl-2-pentanone	108-10-1	0.19	0.73	0.91	0.38 J



MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.14	0.42	2.6	14
alpha-Chlorotoluene	100-44-7	0.28	0.58	1.2	Not Detected U
Bromodichloromethane	75-27-4	0.19	0.75	1.5	Not Detected U
Bromoform	75-25-2	0.28	1.2	2.3	Not Detected U
Bromomethane	74-83-9	0.33	0.43	4.3	0.88 J
Carbon Disulfide	75-15-0	1.1	1.1	3.5	Not Detected U
Carbon Tetrachloride	56-23-5	0.20	0.70	1.4	0.47 J
Chlorobenzene	108-90-7	0.24	0.51	1.0	Not Detected U
Chloroethane	75-00-3	0.21	0.29	2.9	Not Detected U
Chloroform	67-66-3	0.26	0.54	1.1	Not Detected U
Chloromethane	74-87-3	0.13	0.23	0.46	1.3
cis-1,2-Dichloroethene	156-59-2	0.27	0.44	0.88	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.15	0.50	1.0	Not Detected U
Cumene	98-82-8	0.26	0.55	1.1	Not Detected U
Dibromochloromethane	124-48-1	0.40	0.95	1.9	Not Detected U
Ethanol	64-17-5	0.21	1.0	2.1	50
Ethyl Benzene	100-41-4	0.20	0.48	0.97	0.44 J
Freon 11	75-69-4	0.26	0.63	1.2	1.2 J
Freon 113	76-13-1	0.41	0.85	1.7	Not Detected U
Freon 114	76-14-2	0.39	0.78	1.6	Not Detected U
Freon 12	75-71-8	0.18	0.55	1.1	2.1
Heptane	142-82-5	0.30	0.73	0.91	7.9



MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1 Lab Duplicate	Date/Time Analyzed:	8/7/12 07:01 PM
Lab ID:	1207441-03AA	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 04:53 PM	Instrument/Filename:	msde.i / e080713
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.88	1.9	12	Not Detected U
Hexane	110-54-3	0.13	0.39	0.78	7.2
m,p-Xylene	108-38-3	0.21	0.48	0.97	0.98
Methyl tert-butyl ether	1634-04-4	0.23	0.40	0.80	Not Detected U
Methylene Chloride	75-09-2	0.23	0.39	1.5	0.90 J
o-Xylene	95-47-6	0.21	0.48	0.97	0.28 J
Propylbenzene	103-65-1	0.24	0.55	1.1	Not Detected U
Styrene	100-42-5	0.20	0.47	0.95	Not Detected U
Tetrachloroethene	127-18-4	0.27	0.76	1.5	Not Detected U
Tetrahydrofuran	109-99-9	0.47	0.53	3.3	0.54 J
Toluene	108-88-3	0.16	0.42	0.84	6.5
trans-1,2-Dichloroethene	156-60-5	0.29	0.71	0.88	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.23	0.50	1.0	Not Detected U
Trichloroethene	79-01-6	0.38	0.60	1.2	Not Detected U
Vinyl Chloride	75-01-4	0.18	0.28	0.57	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	101

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1 Lab Duplicate	Date/Time Analyzed:	8/7/12 07:01 PM
Lab ID:	1207441-03AA	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 04:53 PM	Instrument/Filename:	msde.i / e080713
Media:	6 Liter Summa Canister (100% Certified)		

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	80-120	104
Toluene-d8	2037-26-5	80-116	94

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1	Date/Time Analyzed:	8/7/12 06:12 PM
Lab ID:	1207441-03B	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 04:53 PM	Instrument/Filename:	msde.i / e080712sim
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.027	NA	0.34	Not Detected U
Benzene	71-43-2	0.015	0.021	0.36	6.4

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	104
4-Bromofluorobenzene	460-00-4	80-120	102
Toluene-d8	2037-26-5	80-116	97

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1 Lab Duplicate	Date/Time Analyzed:	8/7/12 07:01 PM
Lab ID:	1207441-03BB	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 04:53 PM	Instrument/Filename:	msde.i / e080713sim
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.027	NA	0.34	Not Detected U
Benzene	71-43-2	0.015	0.021	0.36	6.4

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	104
4-Bromofluorobenzene	460-00-4	80-120	102
Toluene-d8	2037-26-5	80-116	96

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.16	0.55	1.1	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.28	0.69	1.4	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.19	0.55	1.1	Not Detected U
1,1-Dichloroethane	75-34-3	0.15	0.41	0.81	Not Detected U
1,1-Dichloroethene	75-35-4	0.23	0.64	0.80	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	0.22	1.2	7.4	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.24	0.49	0.99	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.26	0.60	1.2	Not Detected U
1,2-Dichloroethane	107-06-2	0.18	0.41	0.81	Not Detected U
1,2-Dichloropropane	78-87-5	0.20	0.46	0.93	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.15	0.49	0.99	Not Detected U
1,3-Butadiene	106-99-0	0.15	0.22	0.44	0.94
1,3-Dichlorobenzene	541-73-1	0.29	0.60	1.2	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.32	0.60	1.2	Not Detected U
1,4-Dioxane	123-91-1	0.25	0.58	0.72	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.46	0.75	4.7	5.8
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.11	0.47	3.0	4.0
2-Hexanone	591-78-6	0.27	0.66	4.1	Not Detected U
2-Propanol	67-63-0	0.28	0.40	2.5	4.5
3-Chloropropene	107-05-1	0.17	0.50	3.1	Not Detected U
4-Ethyltoluene	622-96-8	0.15	0.49	0.99	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.17	0.66	0.82	0.41 J



MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-2	Date/Time Analyzed:	8/7/12 08:01 PM
Lab ID:	1207441-04A	Dilution Factor:	2.01
Date/Time Collecte	7/17/12 05:15 PM	Instrument/File Name:	msde.i / e080714
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.13	0.38	2.4	22
alpha-Chlorotoluene	100-44-7	0.25	0.52	1.0	Not Detected U
Bromodichloromethane	75-27-4	0.17	0.67	1.3	Not Detected U
Bromoform	75-25-2	0.26	1.0	2.1	Not Detected U
Bromomethane	74-83-9	0.30	0.39	3.9	0.88 J
Carbon Disulfide	75-15-0	0.98	0.98	3.1	2.2 J
Carbon Tetrachloride	56-23-5	0.18	0.63	1.3	0.44 J
Chlorobenzene	108-90-7	0.22	0.46	0.92	Not Detected U
Chloroethane	75-00-3	0.19	0.26	2.6	Not Detected U
Chloroform	67-66-3	0.23	0.49	0.98	Not Detected U
Chloromethane	74-87-3	0.12	0.21	0.42	1.3
cis-1,2-Dichloroethene	156-59-2	0.24	0.40	0.80	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.14	0.46	0.91	Not Detected U
Cumene	98-82-8	0.23	0.49	0.99	Not Detected U
Dibromochloromethane	124-48-1	0.36	0.86	1.7	Not Detected U
Ethanol	64-17-5	0.19	0.91	1.9	38
Ethyl Benzene	100-41-4	0.18	0.44	0.87	0.74 J
Freon 11	75-69-4	0.23	0.56	1.1	1.1 J
Freon 113	76-13-1	0.37	0.77	1.5	0.63 J
Freon 114	76-14-2	0.35	0.70	1.4	Not Detected U
Freon 12	75-71-8	0.17	0.50	0.99	2.0
Heptane	142-82-5	0.27	0.66	0.82	5.7

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-2	Date/Time Analyzed:	8/7/12 08:01 PM
Lab ID:	1207441-04A	Dilution Factor:	2.01
Date/Time Collecte	7/17/12 05:15 PM	Instrument/Filename:	msde.i / e080714
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.80	1.7	11	Not Detected U
Hexane	110-54-3	0.12	0.35	0.71	7.3
m,p-Xylene	108-38-3	0.19	0.44	0.87	1.4
Methyl tert-butyl ether	1634-04-4	0.21	0.36	0.72	Not Detected U
Methylene Chloride	75-09-2	0.21	0.35	1.4	4.2
o-Xylene	95-47-6	0.19	0.44	0.87	0.44 J
Propylbenzene	103-65-1	0.21	0.49	0.99	Not Detected U
Styrene	100-42-5	0.18	0.43	0.86	Not Detected U
Tetrachloroethene	127-18-4	0.25	0.68	1.4	0.49 J
Tetrahydrofuran	109-99-9	0.42	0.47	3.0	0.55 J
Toluene	108-88-3	0.14	0.38	0.76	14
trans-1,2-Dichloroethene	156-60-5	0.26	0.64	0.80	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.20	0.46	0.91	Not Detected U
Trichloroethene	79-01-6	0.35	0.54	1.1	Not Detected U
Vinyl Chloride	75-01-4	0.16	0.26	0.51	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	101

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-2	Date/Time Analyzed:	8/7/12 08:01 PM
Lab ID:	1207441-04A	Dilution Factor:	2.01
Date/Time Collecte	7/17/12 05:15 PM	Instrument/Filename:	msde.i / e080714
Media:	6 Liter Summa Canister (100% Certified)		

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	80-120	98
Toluene-d8	2037-26-5	80-116	97

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-2	Date/Time Analyzed:	8/7/12 08:01 PM
Lab ID:	1207441-04B	Dilution Factor:	2.01
Date/Time Collecte	7/17/12 05:15 PM	Instrument/Filename:	msde.i / e080714sim
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.024	NA	0.31	Not Detected U
Benzene	71-43-2	0.013	0.019	0.32	5.3

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	104
4-Bromofluorobenzene	460-00-4	80-120	99
Toluene-d8	2037-26-5	80-116	93



MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.18	0.58	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.30	0.73	1.4	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.20	0.58	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.16	0.43	0.86	Not Detected U
1,1-Dichloroethene	75-35-4	0.24	0.67	0.84	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	0.24	1.2	7.9	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.25	0.52	1.0	52
1,2-Dichlorobenzene	95-50-1	0.27	0.64	1.3	Not Detected U
1,2-Dichloroethane	107-06-2	0.18	0.43	0.86	Not Detected U
1,2-Dichloropropane	78-87-5	0.20	0.49	0.98	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.16	0.52	1.0	11
1,3-Butadiene	106-99-0	0.16	0.23	0.47	4.0
1,3-Dichlorobenzene	541-73-1	0.31	0.64	1.3	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.33	0.64	1.3	Not Detected U
1,4-Dioxane	123-91-1	0.26	0.61	0.76	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.49	0.79	5.0	35
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.12	0.50	3.1	4.0
2-Hexanone	591-78-6	0.28	0.69	4.3	Not Detected U
2-Propanol	67-63-0	0.30	0.42	2.6	0.85 J
3-Chloropropene	107-05-1	0.18	0.53	3.3	Not Detected U
4-Ethyltoluene	622-96-8	0.16	0.52	1.0	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.18	0.69	0.87	0.59 J

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1026	Date/Time Analyzed:	8/7/12 08:49 PM
Lab ID:	1207441-05A	Dilution Factor:	2.12
Date/Time Collecte	7/17/12 05:03 PM	Instrument/Filename:	msde.i / e080715
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.13	0.40	2.5	16
alpha-Chlorotoluene	100-44-7	0.26	0.55	1.1	Not Detected U
Bromodichloromethane	75-27-4	0.18	0.71	1.4	Not Detected U
Bromoform	75-25-2	0.27	1.1	2.2	Not Detected U
Bromomethane	74-83-9	0.32	0.41	4.1	Not Detected U
Carbon Disulfide	75-15-0	1.0	1.0	3.3	1.0 J
Carbon Tetrachloride	56-23-5	0.19	0.67	1.3	0.39 J
Chlorobenzene	108-90-7	0.23	0.49	0.98	Not Detected U
Chloroethane	75-00-3	0.20	0.28	2.8	Not Detected U
Chloroform	67-66-3	0.25	0.52	1.0	Not Detected U
Chloromethane	74-87-3	0.13	0.22	0.44	0.88
cis-1,2-Dichloroethene	156-59-2	0.26	0.42	0.84	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.14	0.48	0.96	Not Detected U
Cumene	98-82-8	0.25	0.52	1.0	5.4
Dibromochloromethane	124-48-1	0.38	0.90	1.8	Not Detected U
Ethanol	64-17-5	0.20	0.96	2.0	3.7
Ethyl Benzene	100-41-4	0.19	0.46	0.92	14
Freon 11	75-69-4	0.24	0.60	1.2	1.2 J
Freon 113	76-13-1	0.39	0.81	1.6	0.48 J
Freon 114	76-14-2	0.37	0.74	1.5	Not Detected U
Freon 12	75-71-8	0.18	0.52	1.0	2.1
Heptane	142-82-5	0.28	0.70	0.87	39

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1026	Date/Time Analyzed:	8/7/12 08:49 PM
Lab ID:	1207441-05A	Dilution Factor:	2.12
Date/Time Collecte	7/17/12 05:03 PM	Instrument/Filename:	msde.i / e080715
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.84	1.8	11	Not Detected U
Hexane	110-54-3	0.13	0.37	0.75	34
m,p-Xylene	108-38-3	0.20	0.46	0.92	26
Methyl tert-butyl ether	1634-04-4	0.22	0.38	0.76	Not Detected U
Methylene Chloride	75-09-2	0.22	0.37	1.5	0.90 J
o-Xylene	95-47-6	0.20	0.46	0.92	13
Propylbenzene	103-65-1	0.22	0.52	1.0	11
Styrene	100-42-5	0.19	0.45	0.90	0.98
Tetrachloroethene	127-18-4	0.26	0.72	1.4	Not Detected U
Tetrahydrofuran	109-99-9	0.44	0.50	3.1	Not Detected U
Toluene	108-88-3	0.15	0.40	0.80	37
trans-1,2-Dichloroethene	156-60-5	0.28	0.67	0.84	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.22	0.48	0.96	Not Detected U
Trichloroethene	79-01-6	0.36	0.57	1.1	Not Detected U
Vinyl Chloride	75-01-4	0.17	0.27	0.54	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	109

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1026	Date/Time Analyzed:	8/7/12 08:49 PM
Lab ID:	1207441-05A	Dilution Factor:	2.12
Date/Time Collecte	7/17/12 05:03 PM	Instrument/Filename:	msde.i / e080715
Media:	6 Liter Summa Canister (100% Certified)		

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	80-120	106
Toluene-d8	2037-26-5	80-116	104

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1026	Date/Time Analyzed:	8/7/12 08:49 PM
Lab ID:	1207441-05B	Dilution Factor:	2.12
Date/Time Collecte	7/17/12 05:03 PM	Instrument/Filename:	msde.i / e080715sim
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.025	NA	0.32	Not Detected U
Benzene	71-43-2	0.014	0.020	0.34	23

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	105
4-Bromofluorobenzene	460-00-4	80-120	105
Toluene-d8	2037-26-5	80-116	102



MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.18	0.61	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.31	0.76	1.5	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.21	0.61	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.17	0.45	0.90	Not Detected U
1,1-Dichloroethene	75-35-4	0.26	0.71	0.88	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	0.25	1.3	8.3	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.27	0.55	1.1	0.52 J
1,2-Dichlorobenzene	95-50-1	0.28	0.67	1.3	Not Detected U
1,2-Dichloroethane	107-06-2	0.20	0.45	0.90	Not Detected U
1,2-Dichloropropane	78-87-5	0.22	0.52	1.0	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.17	0.55	1.1	0.25 J
1,3-Butadiene	106-99-0	0.17	0.25	0.49	Not Detected U
1,3-Dichlorobenzene	541-73-1	0.33	0.67	1.3	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.35	0.67	1.3	Not Detected U
1,4-Dioxane	123-91-1	0.28	0.64	0.80	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.52	0.83	5.2	Not Detected U
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.12	0.53	3.3	5.9
2-Hexanone	591-78-6	0.30	0.73	4.6	Not Detected U
2-Propanol	67-63-0	0.32	0.44	2.7	Not Detected U
3-Chloropropene	107-05-1	0.19	0.56	3.5	Not Detected U
4-Ethyltoluene	622-96-8	0.17	0.55	1.1	0.59 J
4-Methyl-2-pentanone	108-10-1	0.19	0.73	0.91	0.51 J

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1033	Date/Time Analyzed:	8/7/12 09:46 PM
Lab ID:	1207441-06A	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 05:12 PM	Instrument/Filename:	msde.i / e080716
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.14	0.42	2.6	13
alpha-Chlorotoluene	100-44-7	0.28	0.58	1.2	Not Detected U
Bromodichloromethane	75-27-4	0.19	0.75	1.5	Not Detected U
Bromoform	75-25-2	0.28	1.2	2.3	Not Detected U
Bromomethane	74-83-9	0.33	0.43	4.3	0.72 J
Carbon Disulfide	75-15-0	1.1	1.1	3.5	Not Detected U
Carbon Tetrachloride	56-23-5	0.20	0.70	1.4	0.46 J
Chlorobenzene	108-90-7	0.24	0.51	1.0	Not Detected U
Chloroethane	75-00-3	0.21	0.29	2.9	Not Detected U
Chloroform	67-66-3	0.26	0.54	1.1	Not Detected U
Chloromethane	74-87-3	0.13	0.23	0.46	1.0
cis-1,2-Dichloroethene	156-59-2	0.27	0.44	0.88	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.15	0.50	1.0	Not Detected U
Cumene	98-82-8	0.26	0.55	1.1	Not Detected U
Dibromochloromethane	124-48-1	0.40	0.95	1.9	Not Detected U
Ethanol	64-17-5	0.21	1.0	2.1	3.9
Ethyl Benzene	100-41-4	0.20	0.48	0.97	0.20 J
Freon 11	75-69-4	0.26	0.63	1.2	1.3
Freon 113	76-13-1	0.41	0.85	1.7	Not Detected U
Freon 114	76-14-2	0.39	0.78	1.6	Not Detected U
Freon 12	75-71-8	0.18	0.55	1.1	2.1
Heptane	142-82-5	0.30	0.73	0.91	Not Detected U

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1033	Date/Time Analyzed:	8/7/12 09:46 PM
Lab ID:	1207441-06A	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 05:12 PM	Instrument/Filename:	msde.i / e080716
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.88	1.9	12	Not Detected U
Hexane	110-54-3	0.13	0.39	0.78	0.34 J
m,p-Xylene	108-38-3	0.21	0.48	0.97	0.39 J
Methyl tert-butyl ether	1634-04-4	0.23	0.40	0.80	Not Detected U
Methylene Chloride	75-09-2	0.23	0.39	1.5	0.29 J
o-Xylene	95-47-6	0.21	0.48	0.97	0.26 J
Propylbenzene	103-65-1	0.24	0.55	1.1	Not Detected U
Styrene	100-42-5	0.20	0.47	0.95	5.4
Tetrachloroethene	127-18-4	0.27	0.76	1.5	Not Detected U
Tetrahydrofuran	109-99-9	0.47	0.53	3.3	1.5 J
Toluene	108-88-3	0.16	0.42	0.84	0.82 J
trans-1,2-Dichloroethene	156-60-5	0.29	0.71	0.88	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.23	0.50	1.0	Not Detected U
Trichloroethene	79-01-6	0.38	0.60	1.2	Not Detected U
Vinyl Chloride	75-01-4	0.18	0.28	0.57	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	99

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1033	Date/Time Analyzed:	8/7/12 09:46 PM
Lab ID:	1207441-06A	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 05:12 PM	Instrument/Filename:	msde.i / e080716
Media:	6 Liter Summa Canister (100% Certified)		

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	80-120	105
Toluene-d8	2037-26-5	80-116	96

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1033	Date/Time Analyzed:	8/7/12 09:46 PM
Lab ID:	1207441-06B	Dilution Factor:	2.23
Date/Time Collecte	7/17/12 05:12 PM	Instrument/Filename:	msde.i / e080716sim
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.027	NA	0.34	Not Detected U
Benzene	71-43-2	0.015	0.021	0.36	0.67

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	99
4-Bromofluorobenzene	460-00-4	80-120	105
Toluene-d8	2037-26-5	80-116	95

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Air-Dup	Date/Time Analyzed:	8/7/12 10:29 PM
Lab ID:	1207441-07A	Dilution Factor:	2.12
Date/Time Collecte	7/17/12 04:00 PM	Instrument/Filename:	msde.i / e080717
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.18	0.58	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.30	0.73	1.4	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.20	0.58	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.16	0.43	0.86	Not Detected U
1,1-Dichloroethene	75-35-4	0.24	0.67	0.84	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	0.24	1.2	7.9	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.25	0.52	1.0	0.76 J
1,2-Dichlorobenzene	95-50-1	0.27	0.64	1.3	Not Detected U
1,2-Dichloroethane	107-06-2	0.18	0.43	0.86	Not Detected U
1,2-Dichloropropane	78-87-5	0.20	0.49	0.98	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.16	0.52	1.0	0.27 J
1,3-Butadiene	106-99-0	0.16	0.23	0.47	1.2
1,3-Dichlorobenzene	541-73-1	0.31	0.64	1.3	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.33	0.64	1.3	Not Detected U
1,4-Dioxane	123-91-1	0.26	0.61	0.76	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.49	0.79	5.0	7.5
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.12	0.50	3.1	2.0 J
2-Hexanone	591-78-6	0.28	0.69	4.3	Not Detected U
2-Propanol	67-63-0	0.30	0.42	2.6	0.72 J
3-Chloropropene	107-05-1	0.18	0.53	3.3	Not Detected U
4-Ethyltoluene	622-96-8	0.16	0.52	1.0	0.74 J
4-Methyl-2-pentanone	108-10-1	0.18	0.69	0.87	0.43 J

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Air-Dup	Date/Time Analyzed:	8/7/12 10:29 PM
Lab ID:	1207441-07A	Dilution Factor:	2.12
Date/Time Collecte	7/17/12 04:00 PM	Instrument/Filename:	msde.i / e080717
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.13	0.40	2.5	19
alpha-Chlorotoluene	100-44-7	0.26	0.55	1.1	Not Detected U
Bromodichloromethane	75-27-4	0.18	0.71	1.4	Not Detected U
Bromoform	75-25-2	0.27	1.1	2.2	Not Detected U
Bromomethane	74-83-9	0.32	0.41	4.1	1.1 J
Carbon Disulfide	75-15-0	1.0	1.0	3.3	Not Detected U
Carbon Tetrachloride	56-23-5	0.19	0.67	1.3	0.42 J
Chlorobenzene	108-90-7	0.23	0.49	0.98	Not Detected U
Chloroethane	75-00-3	0.20	0.28	2.8	Not Detected U
Chloroform	67-66-3	0.25	0.52	1.0	Not Detected U
Chloromethane	74-87-3	0.13	0.22	0.44	1.2
cis-1,2-Dichloroethene	156-59-2	0.26	0.42	0.84	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.14	0.48	0.96	Not Detected U
Cumene	98-82-8	0.25	0.52	1.0	Not Detected U
Dibromochloromethane	124-48-1	0.38	0.90	1.8	Not Detected U
Ethanol	64-17-5	0.20	0.96	2.0	22
Ethyl Benzene	100-41-4	0.19	0.46	0.92	1.8
Freon 11	75-69-4	0.24	0.60	1.2	1.1 J
Freon 113	76-13-1	0.39	0.81	1.6	0.53 J
Freon 114	76-14-2	0.37	0.74	1.5	Not Detected U
Freon 12	75-71-8	0.18	0.52	1.0	2.2
Heptane	142-82-5	0.28	0.70	0.87	7.5

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Air-Dup	Date/Time Analyzed:	8/7/12 10:29 PM
Lab ID:	1207441-07A	Dilution Factor:	2.12
Date/Time Collecte	7/17/12 04:00 PM	Instrument/Filename:	msde.i / e080717
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.84	1.8	11	Not Detected U
Hexane	110-54-3	0.13	0.37	0.75	6.7
m,p-Xylene	108-38-3	0.20	0.46	0.92	6.0
Methyl tert-butyl ether	1634-04-4	0.22	0.38	0.76	Not Detected U
Methylene Chloride	75-09-2	0.22	0.37	1.5	0.33 J
o-Xylene	95-47-6	0.20	0.46	0.92	1.8
Propylbenzene	103-65-1	0.22	0.52	1.0	0.30 J
Styrene	100-42-5	0.19	0.45	0.90	Not Detected U
Tetrachloroethene	127-18-4	0.26	0.72	1.4	Not Detected U
Tetrahydrofuran	109-99-9	0.44	0.50	3.1	0.76 J
Toluene	108-88-3	0.15	0.40	0.80	11
trans-1,2-Dichloroethene	156-60-5	0.28	0.67	0.84	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.22	0.48	0.96	Not Detected U
Trichloroethene	79-01-6	0.36	0.57	1.1	Not Detected U
Vinyl Chloride	75-01-4	0.17	0.27	0.54	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	104

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Air-Dup	Date/Time Analyzed:	8/7/12 10:29 PM
Lab ID:	1207441-07A	Dilution Factor:	2.12
Date/Time Collecte	7/17/12 04:00 PM	Instrument/Filename:	msde.i / e080717
Media:	6 Liter Summa Canister (100% Certified)		

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	80-120	99
Toluene-d8	2037-26-5	80-116	98

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Air-Dup	Date/Time Analyzed:	8/7/12 10:29 PM
Lab ID:	1207441-07B	Dilution Factor:	2.12
Date/Time Collecte	7/17/12 04:00 PM	Instrument/Filename:	msde.i / e080717sim
Media:	6 Liter Summa Canister (100% Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.025	NA	0.32	Not Detected U
Benzene	71-43-2	0.014	0.020	0.34	5.8

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	104
4-Bromofluorobenzene	460-00-4	80-120	102
Toluene-d8	2037-26-5	80-116	96

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	Lab Blank	Date/Time Analyzed:	8/7/12 01:52 PM
Lab ID:	1207441-08A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080708a
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.082	0.27	0.54	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.14	0.34	0.69	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.095	0.27	0.54	Not Detected U
1,1-Dichloroethane	75-34-3	0.076	0.20	0.40	Not Detected U
1,1-Dichloroethene	75-35-4	0.11	0.32	0.40	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	0.11	0.59	3.7	0.34 J
1,2,4-Trimethylbenzene	95-63-6	0.12	0.24	0.49	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.13	0.30	0.60	Not Detected U
1,2-Dichloroethane	107-06-2	0.088	0.20	0.40	Not Detected U
1,2-Dichloropropane	78-87-5	0.097	0.23	0.46	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.076	0.24	0.49	Not Detected U
1,3-Butadiene	106-99-0	0.076	0.11	0.22	Not Detected U
1,3-Dichlorobenzene	541-73-1	0.15	0.30	0.60	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.16	0.30	0.60	Not Detected U
1,4-Dioxane	123-91-1	0.12	0.29	0.36	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.23	0.37	2.3	Not Detected U
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.055	0.24	1.5	Not Detected U
2-Hexanone	591-78-6	0.13	0.33	2.0	Not Detected U
2-Propanol	67-63-0	0.14	0.20	1.2	Not Detected U
3-Chloropropene	107-05-1	0.085	0.25	1.6	Not Detected U
4-Ethyltoluene	622-96-8	0.075	0.24	0.49	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.084	0.33	0.41	Not Detected U

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	Lab Blank	Date/Time Analyzed:	8/7/12 01:52 PM
Lab ID:	1207441-08A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080708a
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.064	0.19	1.2	0.50 J
alpha-Chlorotoluene	100-44-7	0.12	0.26	0.52	0.14 J
Bromodichloromethane	75-27-4	0.085	0.34	0.67	Not Detected U
Bromoform	75-25-2	0.13	0.52	1.0	Not Detected U
Bromomethane	74-83-9	0.15	0.19	1.9	Not Detected U
Carbon Disulfide	75-15-0	0.49	0.49	1.6	0.74 J
Carbon Tetrachloride	56-23-5	0.090	0.31	0.63	Not Detected U
Chlorobenzene	108-90-7	0.11	0.23	0.46	Not Detected U
Chloroethane	75-00-3	0.095	0.13	1.3	Not Detected U
Chloroform	67-66-3	0.12	0.24	0.49	Not Detected U
Chloromethane	74-87-3	0.060	0.10	0.21	Not Detected U
cis-1,2-Dichloroethene	156-59-2	0.12	0.20	0.40	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.067	0.23	0.45	Not Detected U
Cumene	98-82-8	0.12	0.24	0.49	Not Detected U
Dibromochloromethane	124-48-1	0.18	0.42	0.85	Not Detected U
Ethanol	64-17-5	0.095	0.45	0.94	Not Detected U
Ethyl Benzene	100-41-4	0.088	0.22	0.43	Not Detected U
Freon 11	75-69-4	0.12	0.28	0.56	Not Detected U
Freon 113	76-13-1	0.18	0.38	0.77	Not Detected U
Freon 114	76-14-2	0.17	0.35	0.70	Not Detected U
Freon 12	75-71-8	0.083	0.25	0.49	Not Detected U
Heptane	142-82-5	0.13	0.33	0.41	Not Detected U

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	Lab Blank	Date/Time Analyzed:	8/7/12 01:52 PM
Lab ID:	1207441-08A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080708a
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.40	0.85	5.3	Not Detected U
Hexane	110-54-3	0.060	0.18	0.35	Not Detected U
m,p-Xylene	108-38-3	0.093	0.22	0.43	Not Detected U
Methyl tert-butyl ether	1634-04-4	0.10	0.18	0.36	Not Detected U
Methylene Chloride	75-09-2	0.10	0.17	0.69	0.34 J
o-Xylene	95-47-6	0.095	0.22	0.43	Not Detected U
Propylbenzene	103-65-1	0.10	0.24	0.49	Not Detected U
Styrene	100-42-5	0.092	0.21	0.42	Not Detected U
Tetrachloroethene	127-18-4	0.12	0.34	0.68	Not Detected U
Tetrahydrofuran	109-99-9	0.21	0.24	1.5	Not Detected U
Toluene	108-88-3	0.072	0.19	0.38	Not Detected U
trans-1,2-Dichloroethene	156-60-5	0.13	0.32	0.40	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.10	0.23	0.45	Not Detected U
Trichloroethene	79-01-6	0.17	0.27	0.54	Not Detected U
Vinyl Chloride	75-01-4	0.081	0.13	0.26	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	98

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	Lab Blank	Date/Time Analyzed:	8/7/12 01:52 PM
Lab ID:	1207441-08A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080708a
Media:	NA - Not Applicable		

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	80-120	101
Toluene-d8	2037-26-5	80-116	98

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	Lab Blank	Date/Time Analyzed:	8/7/12 01:52 PM
Lab ID:	1207441-08B	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080708asim
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.012	NA	0.15	Not Detected U
Benzene	71-43-2	0.0066	0.0096	0.16	0.036 J

J = Estimated value.

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	100
4-Bromofluorobenzene	460-00-4	80-120	103
Toluene-d8	2037-26-5	80-116	97

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	CCV	Date/Time Analyzed:	8/7/12 08:35 AM
Lab ID:	1207441-09A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080702a
Media:	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	99
1,1,2,2-Tetrachloroethane	79-34-5	106
1,1,2-Trichloroethane	79-00-5	104
1,1-Dichloroethane	75-34-3	99
1,1-Dichloroethene	75-35-4	95
1,2,4-Trichlorobenzene	120-82-1	106
1,2,4-Trimethylbenzene	95-63-6	114
1,2-Dichlorobenzene	95-50-1	108
1,2-Dichloroethane	107-06-2	109
1,2-Dichloropropane	78-87-5	107
1,3,5-Trimethylbenzene	108-67-8	110
1,3-Butadiene	106-99-0	103
1,3-Dichlorobenzene	541-73-1	107
1,4-Dichlorobenzene	106-46-7	110
1,4-Dioxane	123-91-1	111
2,2,4-Trimethylpentane	540-84-1	104
2-Butanone (Methyl Ethyl Ketone)	78-93-3	104
2-Hexanone	591-78-6	122
2-Propanol	67-63-0	106
3-Chloropropene	107-05-1	100
4-Ethyltoluene	622-96-8	114
4-Methyl-2-pentanone	108-10-1	113

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	CCV	Date/Time Analyzed:	8/7/12 08:35 AM
Lab ID:	1207441-09A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080702a
Media:	NA - Not Applicable		

Compound	CAS#	%Recovery
Acetone	67-64-1	84
alpha-Chlorotoluene	100-44-7	118
Bromodichloromethane	75-27-4	112
Bromoform	75-25-2	111
Bromomethane	74-83-9	89
Carbon Disulfide	75-15-0	99
Carbon Tetrachloride	56-23-5	87
Chlorobenzene	108-90-7	103
Chloroethane	75-00-3	109
Chloroform	67-66-3	96
Chloromethane	74-87-3	91
cis-1,2-Dichloroethene	156-59-2	98
cis-1,3-Dichloropropene	10061-01-5	114
Cumene	98-82-8	121
Dibromochloromethane	124-48-1	117
Ethanol	64-17-5	100
Ethyl Benzene	100-41-4	112
Freon 11	75-69-4	98
Freon 113	76-13-1	104
Freon 114	76-14-2	106
Freon 12	75-71-8	105
Heptane	142-82-5	115

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	CCV	Date/Time Analyzed:	8/7/12 08:35 AM
Lab ID:	1207441-09A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080702a
Media:	NA - Not Applicable		

Compound	CAS#	%Recovery
Hexachlorobutadiene	87-68-3	107
Hexane	110-54-3	106
m,p-Xylene	108-38-3	116
Methyl tert-butyl ether	1634-04-4	105
Methylene Chloride	75-09-2	88
o-Xylene	95-47-6	114
Propylbenzene	103-65-1	112
Styrene	100-42-5	120
Tetrachloroethene	127-18-4	101
Tetrahydrofuran	109-99-9	100
Toluene	108-88-3	107
trans-1,2-Dichloroethene	156-60-5	98
trans-1,3-Dichloropropene	10061-02-6	115
Trichloroethene	79-01-6	108
Vinyl Chloride	75-01-4	103

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	101
4-Bromofluorobenzene	460-00-4	80-120	104
Toluene-d8	2037-26-5	80-116	106

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	CCV	Date/Time Analyzed:	8/7/12 08:35 AM
Lab ID:	1207441-09A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080702a
Media:	NA - Not Applicable		

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	CCV	Date/Time Analyzed:	8/7/12 08:35 AM
Lab ID:	1207441-09B	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080702asim
Media:	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2-Dibromoethane (EDB)	106-93-4	114
Benzene	71-43-2	93

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	95
4-Bromofluorobenzene	460-00-4	80-120	108
Toluene-d8	2037-26-5	80-116	104

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCS	Date/Time Analyzed:	8/7/12 09:19 AM
Lab ID:	1207441-10A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080703a
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)
1,1,1-Trichloroethane	71-55-6		98
1,1,2,2-Tetrachloroethane	79-34-5		100
1,1,2-Trichloroethane	79-00-5		99
1,1-Dichloroethane	75-34-3		97
1,1-Dichloroethene	75-35-4		102
1,2,4-Trichlorobenzene	120-82-1		105
1,2,4-Trimethylbenzene	95-63-6		108
1,2-Dichlorobenzene	95-50-1		102
1,2-Dichloroethane	107-06-2		103
1,2-Dichloropropane	78-87-5		100
1,3,5-Trimethylbenzene	108-67-8		105
1,3-Butadiene	106-99-0		99
1,3-Dichlorobenzene	541-73-1		102
1,4-Dichlorobenzene	106-46-7		104
1,4-Dioxane	123-91-1		107
2,2,4-Trimethylpentane	540-84-1		92
2-Butanone (Methyl Ethyl Ketone)	78-93-3		105
2-Hexanone	591-78-6		114
2-Propanol	67-63-0		105
3-Chloropropene	107-05-1		120
4-Ethyltoluene	622-96-8		104
4-Methyl-2-pentanone	108-10-1		117

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCS	Date/Time Analyzed:	8/7/12 09:19 AM
Lab ID:	1207441-10A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080703a
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)
Acetone	67-64-1		83
alpha-Chlorotoluene	100-44-7		109
Bromodichloromethane	75-27-4		108
Bromoform	75-25-2		107
Bromomethane	74-83-9		88
Carbon Disulfide	75-15-0		118
Carbon Tetrachloride	56-23-5		101
Chlorobenzene	108-90-7		99
Chloroethane	75-00-3		108
Chloroform	67-66-3		96
Chloromethane	74-87-3		89
cis-1,2-Dichloroethene	156-59-2		94
cis-1,3-Dichloropropene	10061-01-5		110
Cumene	98-82-8		114
Dibromochloromethane	124-48-1		114
Ethanol	64-17-5		96
Ethyl Benzene	100-41-4		106
Freon 11	75-69-4		96
Freon 113	76-13-1		102
Freon 114	76-14-2		100
Freon 12	75-71-8		100
Heptane	142-82-5		108

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCS	Date/Time Analyzed:	8/7/12 09:19 AM
Lab ID:	1207441-10A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080703a
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)
Hexachlorobutadiene	87-68-3		101
Hexane	110-54-3		102
m,p-Xylene	108-38-3		109
Methyl tert-butyl ether	1634-04-4		103
Methylene Chloride	75-09-2		87
o-Xylene	95-47-6		110
Propylbenzene	103-65-1		109
Styrene	100-42-5		115
Tetrachloroethene	127-18-4		95
Tetrahydrofuran	109-99-9		98
Toluene	108-88-3		104
trans-1,2-Dichloroethene	156-60-5		111
trans-1,3-Dichloropropene	10061-02-6		109
Trichloroethene	79-01-6		106
Vinyl Chloride	75-01-4		103

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	101
4-Bromofluorobenzene	460-00-4	80-120	104
Toluene-d8	2037-26-5	80-116	107

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCS	Date/Time Analyzed:	8/7/12 09:19 AM
Lab ID:	1207441-10A	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080703a
Media:	NA - Not Applicable		

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCSD	Date/Time Analyzed:	8/7/12 10:06 AM
Lab ID:	1207441-10AA	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080704a
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)
1,1,1-Trichloroethane	71-55-6		92
1,1,2,2-Tetrachloroethane	79-34-5		98
1,1,2-Trichloroethane	79-00-5		96
1,1-Dichloroethane	75-34-3		90
1,1-Dichloroethene	75-35-4		94
1,2,4-Trichlorobenzene	120-82-1		96
1,2,4-Trimethylbenzene	95-63-6		100
1,2-Dichlorobenzene	95-50-1		99
1,2-Dichloroethane	107-06-2		96
1,2-Dichloropropane	78-87-5		100
1,3,5-Trimethylbenzene	108-67-8		99
1,3-Butadiene	106-99-0		92
1,3-Dichlorobenzene	541-73-1		98
1,4-Dichlorobenzene	106-46-7		100
1,4-Dioxane	123-91-1		104
2,2,4-Trimethylpentane	540-84-1		89
2-Butanone (Methyl Ethyl Ketone)	78-93-3		99
2-Hexanone	591-78-6		114
2-Propanol	67-63-0		98
3-Chloropropene	107-05-1		107
4-Ethyltoluene	622-96-8		99
4-Methyl-2-pentanone	108-10-1		104

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCSD	Date/Time Analyzed:	8/7/12 10:06 AM
Lab ID:	1207441-10AA	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080704a
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)
Acetone	67-64-1		77
alpha-Chlorotoluene	100-44-7		104
Bromodichloromethane	75-27-4		102
Bromoform	75-25-2		104
Bromomethane	74-83-9		85
Carbon Disulfide	75-15-0		111
Carbon Tetrachloride	56-23-5		94
Chlorobenzene	108-90-7		95
Chloroethane	75-00-3		97
Chloroform	67-66-3		90
Chloromethane	74-87-3		82
cis-1,2-Dichloroethene	156-59-2		90
cis-1,3-Dichloropropene	10061-01-5		104
Cumene	98-82-8		110
Dibromochloromethane	124-48-1		111
Ethanol	64-17-5		88
Ethyl Benzene	100-41-4		102
Freon 11	75-69-4		89
Freon 113	76-13-1		95
Freon 114	76-14-2		94
Freon 12	75-71-8		92
Heptane	142-82-5		103

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCSD	Date/Time Analyzed:	8/7/12 10:06 AM
Lab ID:	1207441-10AA	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080704a
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)
Hexachlorobutadiene	87-68-3		96
Hexane	110-54-3		95
m,p-Xylene	108-38-3		108
Methyl tert-butyl ether	1634-04-4		96
Methylene Chloride	75-09-2		80
o-Xylene	95-47-6		107
Propylbenzene	103-65-1		103
Styrene	100-42-5		110
Tetrachloroethene	127-18-4		93
Tetrahydrofuran	109-99-9		90
Toluene	108-88-3		98
trans-1,2-Dichloroethene	156-60-5		101
trans-1,3-Dichloropropene	10061-02-6		107
Trichloroethene	79-01-6		100
Vinyl Chloride	75-01-4		94

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	75-137	94
4-Bromofluorobenzene	460-00-4	80-120	106
Toluene-d8	2037-26-5	80-116	106

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCSD	Date/Time Analyzed:	8/7/12 10:06 AM
Lab ID:	1207441-10AA	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080704a
Media:	NA - Not Applicable		

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCS	Date/Time Analyzed:	8/7/12 09:19 AM
Lab ID:	1207441-10B	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080703asim
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4		109
Benzene	71-43-2		89

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	95
4-Bromofluorobenzene	460-00-4	80-120	108
Toluene-d8	2037-26-5	80-116	105

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCSD	Date/Time Analyzed:	8/7/12 10:06 AM
Lab ID:	1207441-10BB	Dilution Factor:	1.00
Date/Time Collecte	NA - Not Applicable	Instrument/Filename:	msde.i / e080704asim
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4		106
Benzene	71-43-2		86

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	74-137	100
4-Bromofluorobenzene	460-00-4	80-120	108
Toluene-d8	2037-26-5	80-116	104

* % Recovery is calculated using unrounded analytical results.