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FORENSIC TESTING PROGRAM

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Ignitable Liquid Identification
Test No. 19-536 Summary Report

Each sample set consisted of three items: two nylon bags that each contained a cloth remnant to which an ignitable liquid had been added (Items 1 and 2), and one nylon bag that contained a sample of the cloth substrate (Item 3). Data were returned from 297 participants and are compiled into the following tables:

This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

Manufacturer's Information

Each sample set consisted of three items: two nylon bags that contained a cloth remnant to which an ignitable liquid had been added, and one nylon bag that contained a sample of the cloth substrate. Participants were requested to identify and indicate the ASTM class for any ignitable liquid(s) detected in the submitted items.

SUBSTRATE PREPARATION: The cotton cloth was prepared by cutting it into 2" x 2" squares after it had been washed and dried.

ITEMS 1 and 2 (SAMPLE PREPARATION): The ignitable liquid used for Item 1 was Gasoline. The ignitable liquid used for Item 2 was a product labeled as Kingsford Lighter Fluid. They were purchased from a local gas station and home improvement store respectively, in June 2019. After adding 50 μl of the ignitable liquid to the substrate, it was immediately double heat-sealed in a 5" x 10" nylon bag. This bag was then placed in a pre-labeled 6" x 12" nylon bag and double heat-sealed across the top. After sealing, each bag was inspected to determine if it contained an adequate amount of air space. Each item was prepared separately and stored in different locations until the complete sample sets were packaged.

ITEM 3 (NEGATIVE CONTROL): The sample was packaged in the same way as described for Items 1 and 2, but no ignitable liquid was added to the cloth substrate.

SAMPLE SET ASSEMBLY: Once verification was completed, all sample sets were prepared. Prior to packing items into sample pack boxes, each item was again inspected to ensure it contained an adequate amount of air space. For each sample set, an Item 1, 2, and 3 were each placed into a pre-labeled sample pack box. This process was repeated until all of the sample sets were prepared.

VERIFICATION: Laboratories that conducted predistribution analysis of the items classified the ignitable liquid in Item 1 as Gasoline. The ignitable liquid in Item 2 was identified as Medium Petroleum Distillates (including de-aromatized). The liquid was classified using the ASTM classification scheme.

**Source: ASTM E 1618-11, Standard Test Method for Ignitable Liquid Residues in Extracts from Fire Debris Samples by Gas Chromatography-Mass Spectrometry, Table 1.*

Summary Comments

This test was designed to allow participants to assess their ability in the extraction and identification of ignitable liquids on cloth remnants packaged in nylon bags. Participants were provided with three items: two nylon bags that each contained a cloth remnant to which an ignitable liquid had been added (Items 1 and 2), and one nylon bag that contained a sample of the cloth substrate (Item 3). The cloth remnant in the Item 1 bag contained regular, unleaded gasoline. The cloth remnant in the Item 2 bag contained a product labeled as Kingsford Lighter Fluid. (Refer to the Manufacturer's Information for preparation details.)

Of the 297 participants who reported classification results for Item 1, 291 (98.0%) classified the ignitable liquid as belonging to the Gasoline class. Of these participants, 12 reported an additional classification along with Gasoline including Isoparaffinic Products, Petroleum Distillates, and Others-Miscellaneous. Of the remaining six participants who reported classification results, four classified the ignitable liquid as belonging to the Others-Miscellaneous class, one classified it as belonging to the Isoparaffinic Products class, and one classified it as belonging to the Aromatic Products class.

Of the 297 participants who reported classification results for Item 2, 291 (98.0%) classified the ignitable liquid as belonging to the Petroleum Distillates (including De-Aromatized) class. Of the remaining six participants, four classified the ignitable liquid as belonging to the Naphthenic Paraffinic Products class, one classified it as belonging to the Isoparaffinic Products class, and one classified it as belonging to the Normal Alkanes Products class.

The most common extraction technique utilized was heated passive headspace concentration with carbon/charcoal adsorbent and solvent desorption. The most common identification technique utilized was GC/MS.

Ignitable Liquid Identification

Indicate the ASTM E 1618-14 class or classes for any ignitable substances detected in the submitted items.

TABLE 1a - Item 1

WebCode	Item 1: Class	SubClass
2DPU3W	Gasoline	
2F9UFQ	Gasoline	
2GHFTT	Gasoline	
2JAE9C	Gasoline	
2LZWNW	Gasoline	
2MA7CN	Gasoline	
2UU2GX	Gasoline	
2VNMDA	Gasoline	
2XCTF2	Gasoline	
2ZELLT	Gasoline	
329L8B	Gasoline	
34CGNT	Gasoline	
367V7W	Gasoline	
38CTJR	Gasoline	
38VECH	Gasoline	
3D2LXX	Gasoline	
3HE9AW	Gasoline	
3Q9G8M	Gasoline	
3X44Z3	Gasoline	
423UQE	Gasoline	
	Petroleum Distillates (including De-Aromatized)	Medium
43DPC7	Gasoline	
462AY2	Gasoline	
497EPA	Gasoline	
4HDY7K	Gasoline	NA
4KJEL3	Gasoline	
4KUZX6	Gasoline	
	Petroleum Distillates (including De-Aromatized)	medium
4KXMBC	Gasoline	
4LUG82	Gasoline	
4U8AJX	Gasoline	
4WBAD3	Gasoline	
4XNMHY	Gasoline	
62JC4J	Gasoline	
639VPH	Gasoline	
6BLP3Y	Gasoline	

TABLE 1a - Item 1

WebCode	Item 1: Class	SubClass
6H7AJY	Gasoline	
6L7W2N	Gasoline	
73QMBT	Gasoline	
76RBTH	Gasoline	
76UXAW	Gasoline	
7E6YVW	Gasoline	
7EGYP7	Gasoline	
7FCJD6	Gasoline	
7K9MKW	Gasoline	
7MXXBP	Gasoline	
7V9YWQ	Gasoline	
86EGRU	Gasoline	
89UDED	Gasoline	
	Others - Miscellaneous	C6-C15 medium to heavy
8BULHN	Gasoline	
	Others - Miscellaneous	Light
8FTXKF	Gasoline	
8MTETZ	Gasoline	
94FFJG	Gasoline	
9BU6JV	Gasoline	
9CQWUM	Gasoline	
9EVKCX	Gasoline	
9EY8QQ	Gasoline	
9FLV3Q	Gasoline	
9M84UR	Gasoline	
9NZ23X	Gasoline	
9QAHG2	Gasoline	
9U7B7Q	Gasoline	
9ZXG6L	Gasoline	
A7YUMG	Gasoline	
A8PPVQ	Gasoline	
ACHW98	Gasoline	
AHCM2X	Gasoline	
AHXJMQ	Gasoline	
ALRKLK	Gasoline	
ALUTGK	Gasoline	
AQK7CG	Gasoline	
AVWWCM	Gasoline	
AYDGNW	Gasoline	

TABLE 1a - Item 1

WebCode	Item 1: Class	SubClass
B6J6HV	Gasoline	
B8LP7A	Gasoline	
B93ZLM	Gasoline	
	Isoparaffinic Products	Light
B9ZYDP	Gasoline	
BABZZN	Gasoline	
BAQZJD	Gasoline	
BCYTBC	Gasoline	NA
BJJR6Q	Gasoline	
BLKG9E	Gasoline	
BNFBBV	Gasoline	
BRTFJP	Gasoline	
BRXT7L	Gasoline	
BTN4VT	Gasoline	
BWQXX6	Gasoline	
BZ9VRL	Gasoline	
C92P3P	Gasoline	
CDR9XT	Gasoline	
CFHK7U	Gasoline	
CTKDBB	Gasoline	
CW3TZN	Gasoline	
CW4AY2	Gasoline	
D3MF7D	Gasoline	
DARB9L	Gasoline	
DBXCVY	Gasoline	
DCQA47	Gasoline	
DUUHNY	Gasoline	
DV3WPD	Gasoline	
DW2XXQ	Gasoline	
DWYN3Q	Gasoline	
DX7MZZ	Gasoline	
DXUV7X	Gasoline	
DYNGYN	Gasoline	
	Petroleum Distillates (including De-Aromatized)	Medium
E66CEH	Gasoline	
E67RHN	Gasoline	
EF9K3V	Gasoline	
EJPRHH	Gasoline	
EKLN7X	Gasoline	

TABLE 1a - Item 1

WebCode	Item 1: Class	SubClass
ENXD6U	Gasoline	
F88Y2L	Gasoline	
FEP6ZD	Gasoline	
FFMUKF	Gasoline	
FGG4EC	Gasoline	
FHPW4P	Gasoline	
FL8DNB	Gasoline	Light
FMGH2Y	Gasoline	
FTRMXT	Gasoline	
FU6HXK	Gasoline	
FWDUDZ	Gasoline	
FYHM6D	Gasoline	
FZ4RLJ	Gasoline	
FZ8E2C	Gasoline	
G44EXL	Gasoline	
G7BYZ8	Gasoline	
GAEXAE	Gasoline	
GGDGAN	Gasoline	
GH8K8K	Gasoline	
GJGFKG	Gasoline	
GJZHFR	Gasoline	
GQJNH8	Gasoline	
GQZVJ2	Gasoline	
GRRVJX	Gasoline	
GYX7PB	Gasoline	
H2DCRX	Gasoline	
H4NVPE	Gasoline	
H6DRZ3	Gasoline	
H7V37L	Gasoline	
HD8V4H	Gasoline	
HL4Q43	Gasoline	
HN8HVF	Gasoline	
HPMMRR	Gasoline	Light to Medium
HUXGJN	Gasoline	
HVNWYK	Gasoline	
HXCFZH	Gasoline	
J3GQAN	Gasoline	
J4YJPZ	Gasoline	
JAJYVH	Gasoline	

TABLE 1a - Item 1

WebCode	Item 1: Class	SubClass
JDMGAD	Gasoline	
JN2NRZ	Gasoline	
JVH73L	Others - Miscellaneous	Medium to heavy
JW3PE3	Gasoline	
K3NEN3	Gasoline	
K6REH8	Gasoline	
KCRWWJ	Gasoline	
KDZHFD	Gasoline	
KJ4CP9	Gasoline	
KKL2QK	Gasoline	
KNJFDB	Gasoline	
KTEABC	Gasoline	
KU7PNM	Gasoline	
KU9V7N	Gasoline	
KYF3CD	Gasoline	
KYGTKG	Gasoline	
L2ND3P	Gasoline	
L94ZU7	Gasoline	
LPTP22	Gasoline	
LQ49T6	Gasoline	
LU6VG8	Gasoline	
LWMEK6	Gasoline	
LZEQN3	Gasoline	
M2FZRY	Gasoline	
MB8YF4	Gasoline	
MCFLZH	Gasoline	
MD8J9P	Gasoline	
MT3YEB	Others - Miscellaneous	light to medium
MUFYLJ	Gasoline	
MUZCWW	Gasoline	
MVPMPB	Gasoline	
N2DMPN	Gasoline	
NDQJBE	Gasoline	
NDUTXQ	Gasoline	
NEJGJL	Gasoline	
NHJPLB	Gasoline	
NHK39N	Gasoline	
NHNPMG	Gasoline	
NJCMUG	Gasoline	light

TABLE 1a - Item 1

WebCode	Item 1: Class	SubClass
NMCXPG	Gasoline	
NWM7FJ	Gasoline	
NXDEEL	Gasoline	
NYURJ4	Gasoline	
P3NCJ6	Gasoline	
P6BMYX	Gasoline	
PCETCF	Gasoline	
PEGVXB	Gasoline	
PGHGQW	Gasoline	C4-C12
PHFKND	Gasoline	
PJ9HWK	Gasoline	
PMDMPD	Gasoline	
PMRXJB	Gasoline	
PV4T37	Gasoline	
PVL4CC	Gasoline	
	Petroleum Distillates (including De-Aromatized)	Light
Q2737D	Isoparaffinic Products	Light
Q2BC9B	Gasoline	
Q4CKBZ	Gasoline	
Q98AR8	Gasoline	
QED7DT	Gasoline	
QEQGAC	Gasoline	
QHVL47	Gasoline	
QXA9F4	Gasoline	
RGEBQD	Gasoline	
RGGZVB	Gasoline	
RGY3LJ	Gasoline	
RHRG4M	Gasoline	
RJ6RL8	Gasoline	
RJM4HC	Gasoline	
RKRFX8	Gasoline	
RRD42P	Gasoline	
RT8RFE	Gasoline	
RTQT3G	Gasoline	
RUJQAN	Gasoline	
RZAY29	Gasoline	
T2ZMQH	Gasoline	
T3BMT4	Gasoline	
T7XM7J	Gasoline	

TABLE 1a - Item 1

WebCode	Item 1: Class	SubClass
T9WGTM	Gasoline	
TAGGAC	Gasoline	
TFHQF6	Gasoline	
TGG2AL	Gasoline	
TVR4P4	Gasoline	
TWPV2V	Gasoline	
TX4GDH	Gasoline	
U7QEFQ	Gasoline	
U9DJ49	Gasoline	
UE43H6	Gasoline	
UFC2K7	Gasoline	
UFGPCU	Gasoline	
UHMF28	Gasoline	
UHMNGY	Gasoline	
UK4MGU	Gasoline	
UMWKNZ	Gasoline	
UNBLQ8	Gasoline	
UNTFRH	Gasoline	
UP324J	Gasoline	
UQXNH9	Gasoline	
UTYUVT	Gasoline	
UZGX73	Gasoline	
UZXAP8	Gasoline	
VCRQD9	Gasoline	
VDKNLF	Gasoline	
VMCKHV	Gasoline	
VQP47P	Gasoline	Medium
VZYRJ3	Gasoline	
W3JKUQ	Gasoline	
W6UYH6	Gasoline	
W8GHJ3	Gasoline	
W8UACJ	Gasoline	
W8WYH3	Gasoline	
W94XFB	Gasoline	
	Petroleum Distillates (including De-Aromatized)	medium
W97KU4	Gasoline	
W9PXQ9	Gasoline	
W9TU9E	Gasoline	
WAZBXW	Gasoline	

TABLE 1a - Item 1

WebCode	Item 1: Class	SubClass
WLTW4R	Gasoline	
WPCUTH	Gasoline	
WQMMTC	Gasoline	
WRGMKV	Gasoline	
WT9HAP	Aromatic Products	Medium
WZRN7W	Others - Miscellaneous	light to medium (C5-C12)
WZXNED	Gasoline	
X7RHG4	Others - Miscellaneous	C6-C12
XERZX2	Gasoline	
XRW3D4	Gasoline	
XTURX6	Gasoline	
XW4N68	Gasoline	
XZRYLZ	Gasoline	
	Isoparaffinic Products	Medium
YA8VRV	Gasoline	
YB96V9	Gasoline	
	Petroleum Distillates (including De-Aromatized)	Medium
YBQ2GG	Gasoline	
YE82DT	Gasoline	
YFYGQ6	Gasoline	
YNDRBX	Gasoline	
YVT8NM	Gasoline	
Z37HBM	Gasoline	
ZBHG6X	Gasoline	
ZCW2VM	Gasoline	
ZFFXJD	Gasoline	
ZJCKC2	Gasoline	
ZJHU98	Gasoline	FRESH GASOLINE IS TYPICALLY IN THE RANGE C4-C12.
ZK6HK8	Gasoline	
ZN9744	Gasoline	
ZT29AN	Gasoline	
ZUFRW8	Gasoline	
	Petroleum Distillates (including De-Aromatized)	medium
ZUUCKB	Gasoline	
ZVLCJ8	Gasoline	
	Petroleum Distillates (including De-Aromatized)	medium
ZWNDX8	Gasoline	
ZXWYFZ	Gasoline	

TABLE 1a - Item 1

WebCode	Item 1: Class	SubClass
ZYPXN8	Gasoline	

Response Summary

Total Participants: 297

Item 1*: Class

Gasoline	291	(98.0%)
Petroleum Distillates (including De-Aromatized)	8	(2.7%)
Others - Miscellaneous	6	(2.0%)
Isoparaffinic Products	3	(1.0%)
Aromatic Products	1	(0.3%)

Totals may add up to more than the total number of participants because participants can report multiple ignitable substance classes detected.

Ignitable Liquid Identification

Indicate the ASTM E 1618-14 class or classes for any ignitable substances detected in the submitted items.

TABLE 1b- Item 2

WebCode	Item 2: Class	SubClass
2DPU3W	Petroleum Distillates (including De-Aromatized)	Medium
2F9UFQ	Petroleum Distillates (including De-Aromatized)	medium
2GHFTT	Petroleum Distillates (including De-Aromatized)	Medium
2JAE9C	Petroleum Distillates (including De-Aromatized)	Medium
2LZWNW	Petroleum Distillates (including De-Aromatized)	Medium
2MA7CN	Petroleum Distillates (including De-Aromatized)	Medium
2UU2GX	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate
2VNMDA	Petroleum Distillates (including De-Aromatized)	Medium
2XCTF2	Petroleum Distillates (including De-Aromatized)	Medium
2ZELLT	Petroleum Distillates (including De-Aromatized)	Medium
329L8B	Petroleum Distillates (including De-Aromatized)	medium
34CGNT	Petroleum Distillates (including De-Aromatized)	Medium
367V7W	Petroleum Distillates (including De-Aromatized)	medium
38CTJR	Petroleum Distillates (including De-Aromatized)	Medium
38VECH	Petroleum Distillates (including De-Aromatized)	MEDİUM OİL DİSTİLATE
3D2LXX	Petroleum Distillates (including De-Aromatized)	Medium De-aromatized Distillate
3HE9AW	Petroleum Distillates (including De-Aromatized)	Medium
3Q9G8M	Petroleum Distillates (including De-Aromatized)	Medium
3X44Z3	Petroleum Distillates (including De-Aromatized)	Medium
423UQE	Petroleum Distillates (including De-Aromatized)	Medium
43DPC7	Petroleum Distillates (including De-Aromatized)	Medium Range
462AY2	Petroleum Distillates (including De-Aromatized)	Medium
497EPA	Petroleum Distillates (including De-Aromatized)	Medium
4HDY7K	Petroleum Distillates (including De-Aromatized)	Medium
4KJEL3	Petroleum Distillates (including De-Aromatized)	Medium
4KUZX6	Petroleum Distillates (including De-Aromatized)	medium
4KXMBC	Petroleum Distillates (including De-Aromatized)	Medium
4LUG82	Petroleum Distillates (including De-Aromatized)	d-medium
4U8AJX	Petroleum Distillates (including De-Aromatized)	Medium
4WBAD3	Petroleum Distillates (including De-Aromatized)	Medium
4XNMHY	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate
62JC4J	Petroleum Distillates (including De-Aromatized)	medium
639VPH	Petroleum Distillates (including De-Aromatized)	Medium
6BLP3Y	Petroleum Distillates (including De-Aromatized)	Medium
6H7AJY	Petroleum Distillates (including De-Aromatized)	medium
6L7W2N	Petroleum Distillates (including De-Aromatized)	medium
73QMBT	Petroleum Distillates (including De-Aromatized)	medium
76RBTH	Petroleum Distillates (including De-Aromatized)	Medium
76UXAW	Petroleum Distillates (including De-Aromatized)	Medium

TABLE 1b- Item 2

WebCode	Item 2: Class	SubClass
7E6YVW	Petroleum Distillates (including De-Aromatized)	medium
7EGYP7	Petroleum Distillates (including De-Aromatized)	Medium
7FCJD6	Petroleum Distillates (including De-Aromatized)	Medium (C9-C12)
7K9MKW	Petroleum Distillates (including De-Aromatized)	Medium
7MXXBP	Petroleum Distillates (including De-Aromatized)	Medium
7V9YWQ	Petroleum Distillates (including De-Aromatized)	medium
86EGRU	Petroleum Distillates (including De-Aromatized)	Medium
89UDED	Normal Alkanes Products	C8-C13 medium
8BULHN	Petroleum Distillates (including De-Aromatized)	Medium
8FTXKF	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate Class
8MTETZ	Petroleum Distillates (including De-Aromatized)	Medium
94FFJG	Petroleum Distillates (including De-Aromatized)	Medium
9BU6JV	Petroleum Distillates (including De-Aromatized)	Medium
9CQWUM	Petroleum Distillates (including De-Aromatized)	Medium
9EVKCX	Petroleum Distillates (including De-Aromatized)	Medium
9EY8QQ	Petroleum Distillates (including De-Aromatized)	Medium
9FLV3Q	Petroleum Distillates (including De-Aromatized)	Medium
9M84UR	Petroleum Distillates (including De-Aromatized)	Medium
9NZ23X	Petroleum Distillates (including De-Aromatized)	Medium (C7-C13)
9QAHG2	Petroleum Distillates (including De-Aromatized)	Medium
9U7B7Q	Petroleum Distillates (including De-Aromatized)	Medium
9ZXG6L	Petroleum Distillates (including De-Aromatized)	Medium
A7YUMG	Petroleum Distillates (including De-Aromatized)	Medium
A8PPVQ	Petroleum Distillates (including De-Aromatized)	Medium
ACHW98	Petroleum Distillates (including De-Aromatized)	medium
AHCM2X	Petroleum Distillates (including De-Aromatized)	Medium
AHXJMQ	Petroleum Distillates (including De-Aromatized)	medium
ALRKLK	Petroleum Distillates (including De-Aromatized)	Medium
ALUTGK	Petroleum Distillates (including De-Aromatized)	Medium
AQK7CG	Petroleum Distillates (including De-Aromatized)	Medium
AVWWCM	Petroleum Distillates (including De-Aromatized)	Medium (C9-C13)
AYDGNW	Petroleum Distillates (including De-Aromatized)	Medium
B6J6HV	Petroleum Distillates (including De-Aromatized)	Medium
B8LP7A	Petroleum Distillates (including De-Aromatized)	medium
B93ZLM	Petroleum Distillates (including De-Aromatized)	medium
B9ZYDP	Petroleum Distillates (including De-Aromatized)	Medium
BABZZN	Petroleum Distillates (including De-Aromatized)	Medium
BAQZJD	Petroleum Distillates (including De-Aromatized)	Medium
BCYTBC	Petroleum Distillates (including De-Aromatized)	Medium
BJJR6Q	Petroleum Distillates (including De-Aromatized)	Medium
BLKG9E	Petroleum Distillates (including De-Aromatized)	Medium
BNFBBV	Petroleum Distillates (including De-Aromatized)	Medium

TABLE 1b- Item 2

WebCode	Item 2: Class	SubClass
BRTFJP	Petroleum Distillates (including De-Aromatized)	Medium
BRXT7L	Petroleum Distillates (including De-Aromatized)	medium
BTN4VT	Petroleum Distillates (including De-Aromatized)	Medium
BWQXX6	Petroleum Distillates (including De-Aromatized)	Medium
BZ9VRL	Petroleum Distillates (including De-Aromatized)	medium
C92P3P	Petroleum Distillates (including De-Aromatized)	medium
CDR9XT	Petroleum Distillates (including De-Aromatized)	Medium
CFHK7U	Petroleum Distillates (including De-Aromatized)	Medium
CTKDBB	Petroleum Distillates (including De-Aromatized)	Medium
CW3TZN	Petroleum Distillates (including De-Aromatized)	Medium
CW4AY2	Petroleum Distillates (including De-Aromatized)	medium
D3MF7D	Petroleum Distillates (including De-Aromatized)	medium
DARB9L	Petroleum Distillates (including De-Aromatized)	Medium
DBXCVY	Petroleum Distillates (including De-Aromatized)	Class 3 Medium Petroleum Distillate
DCQA47	Petroleum Distillates (including De-Aromatized)	Medium
DUUHNY	Petroleum Distillates (including De-Aromatized)	Medium
DV3WPD	Petroleum Distillates (including De-Aromatized)	Medium
DW2XXQ	Petroleum Distillates (including De-Aromatized)	Medium
DWYN3Q	Petroleum Distillates (including De-Aromatized)	Medium
DX7MZZ	Petroleum Distillates (including De-Aromatized)	Medium
DXUV7X	Petroleum Distillates (including De-Aromatized)	Medium
DYNGYN	Petroleum Distillates (including De-Aromatized)	Medium
E66CEH	Petroleum Distillates (including De-Aromatized)	Medium
E67RHN	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate
EF9K3V	Petroleum Distillates (including De-Aromatized)	Medium
EJPRHH	Petroleum Distillates (including De-Aromatized)	MEDIUM
EKLN7X	Petroleum Distillates (including De-Aromatized)	Medium
ENXD6U	Petroleum Distillates (including De-Aromatized)	medium
F88Y2L	Petroleum Distillates (including De-Aromatized)	Medium
FEP6ZD	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
FFMUKF	Petroleum Distillates (including De-Aromatized)	medium
FGG4EC	Petroleum Distillates (including De-Aromatized)	medium
FHPW4P	Petroleum Distillates (including De-Aromatized)	Medium
FL8DNB	Petroleum Distillates (including De-Aromatized)	Medium
FMGH2Y	Naphthenic Paraffinic Products	Medium
FTRMXT	Petroleum Distillates (including De-Aromatized)	Medium Range
FU6HXK	Petroleum Distillates (including De-Aromatized)	Medium
FWDUDZ	Petroleum Distillates (including De-Aromatized)	Medium
FYHM6D	Petroleum Distillates (including De-Aromatized)	Medium
FZ4RLJ	Petroleum Distillates (including De-Aromatized)	Medium
FZ8E2C	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate
G44EXL	Petroleum Distillates (including De-Aromatized)	Medium

TABLE 1b- Item 2

WebCode	Item 2: Class	SubClass
G7BYZ8	Petroleum Distillates (including De-Aromatized)	Medium
GAEXAE	Petroleum Distillates (including De-Aromatized)	Medium
GGDGAN	Petroleum Distillates (including De-Aromatized)	Medium
GH8K8K	Petroleum Distillates (including De-Aromatized)	medium
GJGFKG	Petroleum Distillates (including De-Aromatized)	Medium
GJZHFR	Petroleum Distillates (including De-Aromatized)	medium
GQJNH8	Petroleum Distillates (including De-Aromatized)	Medium
GQZVJ2	Petroleum Distillates (including De-Aromatized)	medium
GRRVJX	Petroleum Distillates (including De-Aromatized)	Medium
GYX7PB	Petroleum Distillates (including De-Aromatized)	Medium
H2DCRX	Petroleum Distillates (including De-Aromatized)	Medium
H4NVPE	Petroleum Distillates (including De-Aromatized)	Medium
H6DRZ3	Petroleum Distillates (including De-Aromatized)	MPD
H7V37L	Petroleum Distillates (including De-Aromatized)	Medium
HD8V4H	Petroleum Distillates (including De-Aromatized)	Medium
HL4Q43	Petroleum Distillates (including De-Aromatized)	medium
HN8HVF	Petroleum Distillates (including De-Aromatized)	Medium
HPMMRR	Petroleum Distillates (including De-Aromatized)	Medium
HUXGJN	Petroleum Distillates (including De-Aromatized)	medium
HVNWYK	Naphthenic Paraffinic Products	Medium
HXCFZH	Petroleum Distillates (including De-Aromatized)	MPD C9-C14
J3GQAN	Petroleum Distillates (including De-Aromatized)	Medium
J4YJPZ	Petroleum Distillates (including De-Aromatized)	medium
JAJYVH	Petroleum Distillates (including De-Aromatized)	Medium
JDMGAD	Petroleum Distillates (including De-Aromatized)	Medium
JN2NRZ	Petroleum Distillates (including De-Aromatized)	MPD
JVH73L	Petroleum Distillates (including De-Aromatized)	Medium
JW3PE3	Petroleum Distillates (including De-Aromatized)	medium
K3NEN3	Petroleum Distillates (including De-Aromatized)	Medium
K6REH8	Petroleum Distillates (including De-Aromatized)	Medium
KCRWWJ	Petroleum Distillates (including De-Aromatized)	medium
KDZHFD	Petroleum Distillates (including De-Aromatized)	Medium
KJ4CP9	Petroleum Distillates (including De-Aromatized)	Medium
KKL2QK	Petroleum Distillates (including De-Aromatized)	Medium
KNJFDB	Petroleum Distillates (including De-Aromatized)	Medium
KTEABC	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
KU7PNM	Petroleum Distillates (including De-Aromatized)	Medium
KU9V7N	Petroleum Distillates (including De-Aromatized)	medium
KYF3CD	Petroleum Distillates (including De-Aromatized)	Medium
KYGTKG	Petroleum Distillates (including De-Aromatized)	Medium
L2ND3P	Petroleum Distillates (including De-Aromatized)	medium
L94ZU7	Petroleum Distillates (including De-Aromatized)	Medium

TABLE 1b- Item 2

WebCode	Item 2: Class	SubClass
LPTP22	Petroleum Distillates (including De-Aromatized)	Medium C9-C12
LQ49T6	Petroleum Distillates (including De-Aromatized)	medium
LU6VG8	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate
LWMEK6	Petroleum Distillates (including De-Aromatized)	Medium
LZEQN3	Petroleum Distillates (including De-Aromatized)	medium
M2FZRY	Petroleum Distillates (including De-Aromatized)	
MB8YF4	Petroleum Distillates (including De-Aromatized)	Medium
MCFLZH	Petroleum Distillates (including De-Aromatized)	Medium
MD8J9P	Petroleum Distillates (including De-Aromatized)	Medium
MT3YEB	Petroleum Distillates (including De-Aromatized)	medium
MUFYLJ	Petroleum Distillates (including De-Aromatized)	medium
MUZCWW	Petroleum Distillates (including De-Aromatized)	Medium
MVPMPB	Petroleum Distillates (including De-Aromatized)	Medium
N2DMPN	Petroleum Distillates (including De-Aromatized)	Medium
NDQJBE	Petroleum Distillates (including De-Aromatized)	Medium
NDUTXQ	Petroleum Distillates (including De-Aromatized)	Medium
NEJGJL	Petroleum Distillates (including De-Aromatized)	Medium
NHJPLB	Petroleum Distillates (including De-Aromatized)	Medium
NHK39N	Petroleum Distillates (including De-Aromatized)	Medium
NHNPMG	Petroleum Distillates (including De-Aromatized)	Medium
NJCMUG	Petroleum Distillates (including De-Aromatized)	medium
NMCXPG	Petroleum Distillates (including De-Aromatized)	C-8 to C-12 Kerosene
NWM7FJ	Petroleum Distillates (including De-Aromatized)	Medium
NXDEEL	Petroleum Distillates (including De-Aromatized)	Medium Petrolium Distillate (C8-C13).
NYURJ4	Petroleum Distillates (including De-Aromatized)	Medium
P3NCJ6	Petroleum Distillates (including De-Aromatized)	Medium
P6BMYX	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate
PCETCF	Petroleum Distillates (including De-Aromatized)	medium
PEGVXB	Petroleum Distillates (including De-Aromatized)	Medium
PGHGQW	Petroleum Distillates (including De-Aromatized)	medium C8-C12
PHFKND	Petroleum Distillates (including De-Aromatized)	Medium
PJ9HWK	Petroleum Distillates (including De-Aromatized)	Medium
PMDMPD	Petroleum Distillates (including De-Aromatized)	Medium (MPD)
PMRXJB	Petroleum Distillates (including De-Aromatized)	Medium
PV4T37	Petroleum Distillates (including De-Aromatized)	Medium
PVL4CC	Petroleum Distillates (including De-Aromatized)	Medium
Q2737D	Naphthenic Paraffinic Products	Light
Q2BC9B	Petroleum Distillates (including De-Aromatized)	Medium
Q4CKBZ	Isoparaffinic Products	medium
Q98AR8	Petroleum Distillates (including De-Aromatized)	MEDIUM
QED7DT	Petroleum Distillates (including De-Aromatized)	Medium
QEQGAC	Petroleum Distillates (including De-Aromatized)	Medium

TABLE 1b- Item 2

WebCode	Item 2: Class	SubClass
QHVL47	Petroleum Distillates (including De-Aromatized)	Medium
QXA9F4	Petroleum Distillates (including De-Aromatized)	medium range
RGEBQD	Petroleum Distillates (including De-Aromatized)	Medium
RGGZVB	Petroleum Distillates (including De-Aromatized)	Medium
RGY3LJ	Petroleum Distillates (including De-Aromatized)	medium
RHRG4M	Petroleum Distillates (including De-Aromatized)	Medium
RJ6RL8	Naphthenic Paraffinic Products	Medium (C7 - C13)
RJM4HC	Petroleum Distillates (including De-Aromatized)	Medium
RKRFX8	Petroleum Distillates (including De-Aromatized)	Medium
RRD42P	Petroleum Distillates (including De-Aromatized)	Medium
RT8RFE	Petroleum Distillates (including De-Aromatized)	Medium
RTQT3G	Petroleum Distillates (including De-Aromatized)	medium
RUJQAN	Petroleum Distillates (including De-Aromatized)	Medium
RZAY29	Petroleum Distillates (including De-Aromatized)	medium dearomatized C10-C13 range
T2ZMQH	Petroleum Distillates (including De-Aromatized)	Medium
T3BMT4	Petroleum Distillates (including De-Aromatized)	Medium
T7XM7J	Petroleum Distillates (including De-Aromatized)	Medium
T9WGTM	Petroleum Distillates (including De-Aromatized)	Medium
TAGGAC	Petroleum Distillates (including De-Aromatized)	Medium
TFHQF6	Petroleum Distillates (including De-Aromatized)	Medium
TGG2AL	Petroleum Distillates (including De-Aromatized)	medium
TVR4P4	Petroleum Distillates (including De-Aromatized)	Medium
TWPV2V	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
TX4GDH	Petroleum Distillates (including De-Aromatized)	medium
U7QEFQ	Petroleum Distillates (including De-Aromatized)	Medium
U9DJ49	Petroleum Distillates (including De-Aromatized)	Medium petroleum distillate
UE43H6	Petroleum Distillates (including De-Aromatized)	medium / C8-C12
UFC2K7	Petroleum Distillates (including De-Aromatized)	Medium
UFGPCU	Petroleum Distillates (including De-Aromatized)	Medium
UHMF28	Petroleum Distillates (including De-Aromatized)	medium
UHMNGY	Petroleum Distillates (including De-Aromatized)	Medium
UK4MGU	Petroleum Distillates (including De-Aromatized)	Medium
UMWKNZ	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate (De-aromatised)
UNBLQ8	Petroleum Distillates (including De-Aromatized)	Medium
UNTFRH	Petroleum Distillates (including De-Aromatized)	Medium
UP324J	Petroleum Distillates (including De-Aromatized)	medium
UQXNH9	Petroleum Distillates (including De-Aromatized)	C9 - C13 Medium
UTYUVT	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
UZGX73	Petroleum Distillates (including De-Aromatized)	Medium
UZXAP8	Petroleum Distillates (including De-Aromatized)	Medium (C8-C12)
VCRQD9	Petroleum Distillates (including De-Aromatized)	Medium
VDKNLF	Petroleum Distillates (including De-Aromatized)	Medium

TABLE 1b- Item 2

WebCode	Item 2: Class	SubClass
VMCKHV	Petroleum Distillates (including De-Aromatized)	medium
VQP47P	Petroleum Distillates (including De-Aromatized)	Medium
VZYRJ3	Petroleum Distillates (including De-Aromatized)	medium
W3JKUQ	Petroleum Distillates (including De-Aromatized)	Medium
W6UYH6	Petroleum Distillates (including De-Aromatized)	Medium
W8GHJ3	Petroleum Distillates (including De-Aromatized)	medium
W8UACJ	Petroleum Distillates (including De-Aromatized)	Medium
W8WYH3	Petroleum Distillates (including De-Aromatized)	Medium
W94XFB	Petroleum Distillates (including De-Aromatized)	Medium
W97KU4	Petroleum Distillates (including De-Aromatized)	Medium (C9-C12)
W9PXQ9	Petroleum Distillates (including De-Aromatized)	Medium
W9TU9E	Petroleum Distillates (including De-Aromatized)	medium range
WAZBXW	Petroleum Distillates (including De-Aromatized)	Medium
WLTW4R	Petroleum Distillates (including De-Aromatized)	medium
WPCUTH	Petroleum Distillates (including De-Aromatized)	Medium
WQMMTC	Petroleum Distillates (including De-Aromatized)	MPD
WRGMKV	Petroleum Distillates (including De-Aromatized)	MPD - medium
WT9HAP	Petroleum Distillates (including De-Aromatized)	Medium
WZRN7W	Petroleum Distillates (including De-Aromatized)	medium
WZXNED	Petroleum Distillates (including De-Aromatized)	Medium
X7RHG4	Petroleum Distillates (including De-Aromatized)	Medium
XERZX2	Petroleum Distillates (including De-Aromatized)	Medium
XRW3D4	Petroleum Distillates (including De-Aromatized)	Medium
XTURX6	Petroleum Distillates (including De-Aromatized)	medium
XW4N68	Petroleum Distillates (including De-Aromatized)	Medium
XZRYLZ	Petroleum Distillates (including De-Aromatized)	Medium
YA8VRV	Petroleum Distillates (including De-Aromatized)	medium
YB96V9	Petroleum Distillates (including De-Aromatized)	Medium
YBQ2GG	Petroleum Distillates (including De-Aromatized)	Medium
YE82DT	Petroleum Distillates (including De-Aromatized)	medium
YFYGQ6	Petroleum Distillates (including De-Aromatized)	Medium
YNDRBX	Petroleum Distillates (including De-Aromatized)	Medium
YVT8NM	Petroleum Distillates (including De-Aromatized)	medium
Z37HBM	Petroleum Distillates (including De-Aromatized)	C3-C11
ZBHG6X	Petroleum Distillates (including De-Aromatized)	Medium
ZCW2VM	Petroleum Distillates (including De-Aromatized)	medium
ZFFXJD	Petroleum Distillates (including De-Aromatized)	medium
ZJCKC2	Petroleum Distillates (including De-Aromatized)	Medium
ZJHU98	Petroleum Distillates (including De-Aromatized)	MEDIUM
ZK6HK8	Petroleum Distillates (including De-Aromatized)	Medium
ZN9744	Petroleum Distillates (including De-Aromatized)	Medium
ZT29AN	Petroleum Distillates (including De-Aromatized)	Medium

TABLE 1b- Item 2

WebCode	Item 2: Class	SubClass
ZUFRW8	Petroleum Distillates (including De-Aromatized)	medium
ZUUCKB	Petroleum Distillates (including De-Aromatized)	Medium
ZVLCJ8	Petroleum Distillates (including De-Aromatized)	medium
ZWNDX8	Petroleum Distillates (including De-Aromatized)	Medium Range
ZXWYFZ	Petroleum Distillates (including De-Aromatized)	Medium
ZYPXN8	Petroleum Distillates (including De-Aromatized)	Medium

Response Summary

Total Participants: 297

Item 2: Class

Petroleum Distillates (including De-Aromatized)	291	(98.0%)	Totals may add up to more than the total number of participants because participants can report multiple ignitable substance classes detected.
Naphthenic Paraffinic Products	4	(1.3%)	
Isoparaffinic Products	1	(0.3%)	
Normal Alkanes Products	1	(0.3%)	

Recovery Techniques

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
2DPU3W	✓			✓	70	2 hours	Carbon/Charcoal	CS2
2F9UFQ	✓			✓	70	16 hours	Carbon/Charcoal	Carbon Disulfide
2GHFTT	✓			✓	79	16 hours	Carbon/Charcoal	Carbon Disulfide
2JAE9C	✓			✓	80	16 hrs	Carbon/Charcoal	carbon disulfide
Other Recovery Technique: Heated headspace								
2LZWNW	✓			✓	70	2 hours	Carbon/Charcoal	Carbon Disulfide
2MA7CN	✓		✓			16 hours	Carbon/Charcoal	Carbon Disulfide
2UU2GX	✓			✓	60	16 hours	Carbon/Charcoal	Carbon Disulfide
2VNMDA	✓			✓	80	2 hours	Carbon/Charcoal	Carbon Disulfide
2XCTF2	✓			✓	75	~ 4 hours	Carbon/Charcoal	Carbon Disulfide
2ZELLT	✓		✓	✓	80		SPME	n-hexane
329L8B	✓			✓	60	16 hours	Carbon/Charcoal	Pentane
34CGNT	✓			✓	90	5 hours	Carbon/Charcoal	Carbon disulfide
367V7W	✓			✓	60	16 hours	Carbon/Charcoal	n-pentane and toluene
38CTJR	✓			✓	70	16 hours	Carbon/Charcoal	CS2
38VECH	✓			✓	70	30 MİNUTES	PDMS(POLYDİMETHYLSILOXONE)	Thermal
Other Recovery Technique: SPME(SOLİD PHASE MİCROEXRACTİON)								
3D2LXX	✓			✓	80	6 hours	Carbon/Charcoal	Carbon disulfide
3HE9AW	✓			✓	66	16 hr	Carbon/Charcoal	CS2
3Q9G8M	✓			✓	65	18 hours	Carbon/Charcoal	carbon disulfide
3X44Z3			✓				Tenax	Thermal
423UQE	✓		✓	✓	60	30 min.	SPME (carboxen)	Thermal
43DPC7	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
462AY2	✓			✓	66	12 hours	Carbon/Charcoal	Carbon Disulfide
497EPA	✓			✓	90	16 hours	Carbon/Charcoal	carbon disulfide
4HDY7K	✓			✓	70	16 hours	Carbon/Charcoal	DCM
4KJEL3	✓			✓	80	4 Hours	Carbon/Charcoal	Pentane
Other Recovery Technique: Headspace Direct Injection								
4KUZX6	✓		✓	✓		1 - 10 min	SPME	hexane
4KXMBC	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
4LUG82	✓			✓	70	16.5 hr	Carbon/Charcoal	TCE/ether

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
4U8AJX	✓			✓	60-70	~18 hours	Carbon/Charcoal	Carbon Disulfide
4WBAD3	✓			✓	60-70	16 Hours	Carbon/Charcoal	Carbon Disulfide
4XNMHY	✓			✓	83.2 - 87.8	2 hours	Carbon/Charcoal	Pentane
62JC4J	✓		✓			30 s	SPME DCP	Thermal
Other Recovery Technique: liquid extraction with n-pentane								
639VPH	✓			✓	~80	Overnight	Carbon/Charcoal	CS2/C26
6BLP3Y	✓			✓	~80	~16 hours	Carbon/Charcoal	Carbon disulfide
6H7AJY	✓			✓	65	16 hours	Carbon/Charcoal	Carbon disulfide
6L7W2N	✓			✓	60	less than 24 hours	Carbon/Charcoal	CS2
73QMBT	✓			✓	65	14.5 hours approx	Carbon/Charcoal	CS2
Other Recovery Technique: static headspace screen								
76RBTH	✓			✓	80	5 hours	Carbon/Charcoal	Carbon Disulphide
76UXAW	✓			✓	85			
7E6YVW	✓			✓	81	19 hours (overnight)	Carbon/Charcoal	carbon disulfide
7EGYP7	✓			✓	60	16 hours	Carbon/Charcoal	Carbon disulfide
7FCJD6								
Other Recovery Technique: Solvent Extraction using n-Pentane								
7K9MKW	✓			✓	70	16	Carbon/Charcoal	Carbon Disulfide
Other Recovery Technique: None								
7MXXBP	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
7V9YWQ	✓			✓	65	16 hours	Carbon/Charcoal	carbon disulfide
86EGRU	✓		✓			10 hrs	Carbon/Charcoal	
Other Recovery Technique: Manual Headspace Injection								
89UDED	✓		✓			15 minutes	SPME	Thermal
8BULHN	✓			✓	70	17 hours	Carbon/Charcoal	CS2
8FTXKF	✓			✓	60	16 hours	Carbon/Charcoal	carbon disulfide
8MTETZ	✓			✓	70	20hrs	Carbon/Charcoal	CS2
94FFJG	✓			✓	60	16 hours 35 minutes	Carbon/Charcoal	Carbon Disulfide
9BU6JV	✓		✓			Approx. 16 hrs	Carbon/Charcoal	CS2
9CQWUM	✓		✓			16-24 hours	Carbon/Charcoal	Dichloromethane
9EVKCX	✓			✓	80	4 hours	Carbon/Charcoal	Pentane
9EY8QQ	✓		✓			22 hours	Carbon/Charcoal	Carbon Disulfide
9FLV3Q	✓			✓	65	16 hours	Carbon/Charcoal	

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
9M84UR	✓			✓	90	10 minutes		
Other Recovery Technique: Solvent extraction - Pentane								
9NZ23X								
Other Recovery Technique: Headspace gas analysis for volatile compounds. Extraction with ethyl acetate for semi-volatile compounds.								
9QAHG2	✓			✓	77	4 hours	Carbon/Charcoal	Carbon Disulfide
9U7B7Q	✓			✓		~17 h	Carbon/Charcoal	CS2
9ZXG6L		✓	✓	✓	130	N/A	Tenax	Thermal
A7YUMG	✓			✓	65	16 hours	Carbon/Charcoal	carbon disulfide
A8PPVQ	✓			✓	66	16 hours	Carbon/Charcoal	CS2
ACHW98	✓			✓	60	~16 hours	Carbon/Charcoal	CS2 & Toluene
AHCM2X	✓			✓	65	16 Hours	Carbon/Charcoal	Carbon Disulfide
AHXJMQ	✓			✓	~ 63	~ 21 hours	Carbon/Charcoal	carbon disulfide
ALRKLK	✓		✓	✓	80	Item1:1.5hrs,Item2 &3:48hrs	Tenax	Thermal
ALUTGK	✓			✓	80	16 hours	Carbon/Charcoal	Carbon disulfide
AQK7CG	✓			✓	90	10 minute		Thermal
AVWWCM	✓			✓	65	16 Hours	Carbon/Charcoal	CS2
AYDGNW	✓			✓	66	12.5 hours	Carbon/Charcoal	Carbon Disulfide
B6J6HV	✓			✓	80	4 hours	Carbon/Charcoal	Pentane
B8LP7A	✓			✓	67	4 hours	Carbon/Charcoal	pentane and carbon disulfide
Other Recovery Technique: solvent extraction with pentane								
B93ZLM		✓				5	Carbon/Charcoal	pentane
B9ZYDP	✓			✓	80	15 hrs	Carbon/Charcoal	Pentane, Thermal
BABZZN	✓			✓	75		Carbon/Charcoal	Carbon Disulfide
BAQZJD								n-pentane
BCYTBC	✓			✓	70	16 Hours	Carbon/Charcoal	Methylene Chloride
BJJR6Q	✓			✓	86	4 hours	Carbon/Charcoal	Carbon Disulfide/Pentane 1/1
BLKG9E	✓			✓	90			n-hexane
BNFBBV	✓			✓	70	16.5 hours	Carbon/Charcoal	Ethyl Ether
BRTFJP	✓			✓	70	15 hours	Carbon/Charcoal	Carbon Disulfide
BRXT7L	✓		✓	✓	61	16hrs	Carbon/Charcoal	CS2
BTN4VT	✓			✓	65	16 hrs	Carbon/Charcoal	CS2

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
BWQXX6	✓			✓	80	4 Hours	Carbon/Charcoal	Pentane
BZ9VRL	✓		✓	✓	61	16hrs	Carbon/Charcoal	CS2
C92P3P	✓			✓	70	4 hours	Carbon/Charcoal	Carbon disulfide
CDR9XT	✓			✓	60-70	16 hours	Carbon/Charcoal	Carbon disulfide
CFHK7U	✓			✓	69	16 Hours	Carbon/Charcoal	Carbon Disulfide
CTKDBB	✓			✓	~80	Overnight	Carbon/Charcoal	CS2/C26
CW3TZN	✓			✓	60	13 hours	Carbon/Charcoal	Carbon Disulfide
CW4AY2				✓	60	16	Carbon/Charcoal	
D3MF7D	✓			✓	65	16 hours	Carbon/Charcoal	CS2
DARB9L	✓			✓	80	2 hours	Carbon/Charcoal	n-Pentane
DBXCVY		✓		✓	90	0.1 minutes	SPME	
DCQA47	✓			✓	70	16 hours	Carbon/Charcoal	Carbon Disulfide
DUUHNY	✓			✓	60	16 hours	Carbon/Charcoal	CS2
DV3WPD	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
DW2XXQ	✓			✓	80	16 hours	Carbon/Charcoal	
DWYN3Q	✓			✓	70	16.5 hours	Carbon/Charcoal	Diethyl Ether
DX7MZZ	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
DXUV7X	✓			✓	70	2 hours	Carbon/Charcoal	Carbon Disulfide
DYNGYN	✓			✓	110	45mn		
Other Recovery Technique: Solvent extraction								
E66CEH	✓			✓	70	20 hours	Carbon/Charcoal	Carbon Disulfide
E67RHN	✓			✓	88.1-91.6	2 hours	Carbon/Charcoal	Pentane
EF9K3V	✓		✓			20 hours	Carbon/Charcoal	CS2
EJPRHH	✓			✓	70	~16 HOURS	Carbon/Charcoal	CARBON DISULFIDE
EKLN7X	✓			✓	80	2 hours	Carbon/Charcoal	carbon disulfide
ENXD6U	✓			✓	68	15 hours	Carbon/Charcoal	Pentane/Carbon Disulfide
F88Y2L	✓		✓	✓	60	16 hours	Carbon/Charcoal	CS2
FEP6ZD	✓			✓	80	10 min	SPME (Carboxen-PDMS)	Thermal
FFMUKF	✓		✓	✓	60	1-16 hours	Tenax	Thermal
FGG4EC	✓			✓	50	5 sec.	SPME-PDMS	Thermal
FHPW4P	✓			✓	73-74	17.75 hours	Carbon/Charcoal	Carbon Disulfide

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
FL8DNB								Extraction
FMGH2Y	✓			✓	60	20 min	PDMS	Thermal
FTRMXT	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
FU6HXK	✓			✓	80	2 hours	Carbon/Charcoal	Pentane
FWDUDZ	✓			✓	70	12-16 hours	Carbon/Charcoal	Carbon Disulfide
FYHM6D	✓			✓	80	16hrs	Carbon/Charcoal	CS2
FZ4RLJ								
Other Recovery Technique: Direct headspace at 90°C.								
FZ8E2C		✓		✓	100	n/a	Tenax	Thermal
G44EXL	✓			✓	80	16 Hours	Carbon/Charcoal	Carbon Disulfide
G7BYZ8	✓			✓	65	15 hours	Carbon/Charcoal	CS2
GAEXAE	✓			✓	80	16 hours	Carbon/Charcoal	carbon disulfide
GGDGAN	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
GH8K8K	✓			✓	95			
Other Recovery Technique: SPME, adsorption 10min @ RT, desorption 250°C								
GJGFKG	✓			✓	60	16 hours	Carbon/Charcoal	Pentane and Toluene
GJZHFR	✓			✓	80	15hr	Carbon/Charcoal	pentane
GQJNH8	✓			✓	80	8 hours	Carbon/Charcoal	DCM/Butanol
GQZVJ2	✓					16 hours	Carbon/Charcoal	carbon disulfide
GRRVJX	✓			✓	80	17 hours	Carbon/Charcoal	Carbon Disulfide
Other Recovery Technique: Direct Headspace Analysis								
GYX7PB	✓			✓	60	16 hours	Carbon/Charcoal	CS2
H2DCRX	✓			✓	65	18 hours	Carbon/Charcoal	CS2
H4NVPE		✓		✓	80	5 min.	Carbon/Charcoal	Pentane
Other Recovery Technique: Heated Headspace Sampling (Direct).								
H6DRZ3	✓			✓	80	8 h	Carbon/Charcoal	dichloromethane / butanol
H7V37L	✓			✓	76	17.25 hours	Carbon/Charcoal	CS2
HD8V4H	✓			✓	60	16 hours	Carbon/Charcoal	carbon disulfide
HL4Q43	✓			✓	76	4 hrs	Carbon/Charcoal	Carbon Disufide
HN8HVF		✓		✓	100	10 minutes	Tenax	Thermal
HPMMRR	✓			✓	80	16 hours	Carbon/Charcoal	CS2
HUXGJN	✓			✓	60	16 hours	Carbon/Charcoal	Carbon Disulfide
HVNWYK		✓		✓	90	10 minute		Hexane

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
HXCFZH	✓			✓	70	24h	Carbon/Charcoal	Carbondisulfide
J3GQAN	✓			✓	64	18 hours	Carbon/Charcoal	C5, CS2
J4YJPZ	✓			✓	75	4 hours	Carbon/Charcoal	CS2
JAJYVH	✓			✓	81	14 hours	Carbon/Charcoal	Carbon Disulfide
JDMGAD	✓		✓			24 hours	Carbon/Charcoal	Pentane
JN2NRZ	✓			✓	130	15 min	spme	Thermal
JVH73L	✓			✓	90	10 minutos	carboxen/PDMS	
Other Recovery Technique: SPME								
JW3PE3	✓			✓	80	8h	Carbon/Charcoal	DCM/Butanol-1
K3NEN3		✓	✓			0	Tenax GR 35/60, Carbograph STD 40/60	Thermal
K6REH8	✓			✓	70	~16 hours	Carbon/Charcoal	Carbon disulfide
KCRWWJ	✓			✓	60	~16 hours	Carbon/Charcoal	Carbon disulfide
KDZHFD	✓			✓	70	1 hr	Carbon/Charcoal	Carbon Disulfide
KJ4CP9	✓			✓	80	8 hr	Carbon/Charcoal	CS2
KKL2QK	✓			✓	60	16 hours	Carbon/Charcoal	Carbon disulfide
KNJFDB	✓		✓	✓	60	3-16hrs	Tenax	Thermal
KTEABC	✓			✓	80	2 hours	Carbon/Charcoal	Carbon disulfide
KU7PNM	✓			✓	60	~14 hours	Carbon/Charcoal	5% CS2 in pentane
KU9V7N	✓			✓	80	4 hours	Carbon/Charcoal	pentane
KYF3CD	✓			✓	60	6 hours	Carbon/Charcoal	Carbon Disulfide
KYGTKG	✓			✓	77	3 hours	Carbon/Charcoal	Carbon disulfide
L2ND3P	✓		✓			~24 hours	Carbon/Charcoal	CS2
L94ZU7	✓			✓	74	17 Hours	Carbon/Charcoal	Carbon Disulfide
LPTP22	✓			✓	60	16 Hours	Carbon/Charcoal	Carbon Disulfide
LQ49T6	✓			✓	80	5 hours	Carbon/Charcoal	
Other Recovery Technique: heated headspace sampling (prior to passive headspace concentration)								
LU6VG8	✓		✓	✓	82.5	16-20 hours	Carbon/Charcoal	Dichloromethan
LWMEK6	✓			✓	90	15 minutes		Thermal
LZEQN3	✓			✓	70	24 hours	Carbon/Charcoal	Diethyl Ether
Other Recovery Technique: Solvent extraction								
M2FZRY	✓			✓	95	24 hours	Carbon/Charcoal	Dichloromethane
MB8YF4	✓			✓	65	16 hours	Carbon/Charcoal	CS2

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
MCFLZH	✓			✓	~80	~16 hours	Carbon/Charcoal	Carbon Disulfide
MD8J9P	✓			✓	90	30 min	(PDMS/Carboxen)	Thermal
Other Recovery Technique: The static or direct headspace								
MT3YEB	✓			✓	80	4 h	Carbon/Charcoal, Tenax TA	carbon disulfide, Thermal
Other Recovery Technique: direct headspace, SPME								
MUFYLJ	✓			✓	80	2 hours	Carbon/Charcoal	carbon disulfide
MUZCWW	✓			✓	70	17 hours	Carbon/Charcoal	Carbon disulfide
MVPMPB	✓			✓	90	1 hour	Tenax TA	Thermal
N2DMPN	✓			✓	66	19 hours	Carbon/Charcoal	CS2
NDQJBE	✓			✓	75.7	2.5 hours	Carbon/Charcoal	CS2
NDUTXQ	✓			✓	70	16 hours	Carbon/Charcoal	Carbon Disulfide
NEJGJL	✓			✓	65	14 hours	Carbon/Charcoal	Carbon Disulfide
NHJPLB	✓			✓	70	16 Hours	Carbon/Charcoal	Carbon Disulfide
NHK39N	✓			✓	65	overnight	Carbon/Charcoal	CS2
NHNPMG	✓			✓	70	16.5hrs	Carbon/Charcoal	Ethyl Ether
NJCMUG	✓			✓	90	10		pentane
NMCXPG	✓			✓	50		Carbon/Charcoal	Carbon Di-Sulfide
NWM7FJ	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
NXDEEL	✓			✓	80		SPME(DVB-PDMS)	Thermal
Other Recovery Technique: Head Space incubation temperature: 90 °C in GC-FID and 60 °C in GC-MS.								
NYURJ4		✓	✓				Tenax	Thermal
P3NCJ6	✓			✓	70	16 hours	Carbon/Charcoal	Carbon Disulfide
P6BMYX	✓			✓	60	16 hours	Carbon/Charcoal	
PCETCF	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
PEGVXB	✓			✓	70	10 hours	Carbon/Charcoal	Ethyl Ether
Other Recovery Technique: Static Headspace Analysis, 70C, 30 minutes								
PGHGQW	✓		✓			15 min	SPME	Thermal
PHFKND	✓			✓	80	17 hrs	Carbon/Charcoal	Carbon Disulfide
PJ9HWK	✓			✓	80	16 hr	Carbon/Charcoal	CS2
PMDMPD	✓			✓	70	~16 hrs	Carbon/Charcoal	CS2
Other Recovery Technique: Simple heated headspace								
PMRXJB	✓			✓	70	10 hours	Carbon/Charcoal	Diethyl ether
Other Recovery Technique: Direct (Static) headspace analysis for light oxygenates								
PV4T37	✓			✓	75	16 hours	Carbon/Charcoal	carbon disulfide
PVL4CC	✓			✓	60	16 Hours	Carbon/Charcoal	CS2

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
Q2737D	✓			✓	60	16 hours	Carbon/Charcoal	Pentane
Q2BC9B	✓			✓	70	16 Hours	Carbon/Charcoal	Carbon Disulfide
Q4CKBZ								
Other Recovery Technique: Headspace-CG-MS								
Q98AR8								PENTANE
QED7DT	✓			✓	70	-	Tenax TA	Thermal
Other Recovery Technique: Direct HS								
QEQGAC	✓		✓	✓	60	16 hours	Carbon/Charcoal	CS2
QHVL47	✓		✓			~ 24 hours	Carbon/Charcoal	Dichloromethane
Other Recovery Technique: SPME and Solvent Extraction								
QXA9F4	✓			✓	60	16 hours	Carbon/Charcoal	carbon disulfide
RGEBQD	✓			✓	90	16H	Carbon/Charcoal	CS2
RGGZVB	✓			✓	80	16 hours	Carbon/Charcoal	Carbon disulfide
RGY3LJ	✓			✓	75	4 hours	Carbon/Charcoal	carbon disulfide
RHRG4M	✓			✓	70	16 hrs 12 minutes	Carbon/Charcoal	Carbon Disulfide
RJ6RL8	✓			✓	80	25 - 30 minutes		Thermal
RJM4HC	✓			✓	63.7	16 hours	Carbon/Charcoal	CS2
RKRFX8	✓			✓	77	18 hours	Carbon/Charcoal	CS2
RRD42P	✓			✓	65	17.25 hrs	Carbon/Charcoal	CS2
RT8RFE	✓			✓	~80	~16 hours	Carbon/Charcoal	Carbon disulfide
RTQT3G	✓		✓			~24 hours	Carbon/Charcoal	CS2
RUJQAN	✓			✓	80	2 hours	Carbon/Charcoal	Carbon Disulfide
RZAY29	✓		✓	✓	80	2Hr	Carbon/Charcoal	CS2
T2ZMQH	✓			✓	80	16 hours	Carbon/Charcoal	Carbon Disulphide
T3BMT4	✓	✓		✓	80	~1 hour	Carbon/Charcoal	carbon disulfide
T7XM7J	✓			✓	90	14 hours	Carbon/Charcoal	carbon disulfide
T9WGTM	✓			✓	65	16 hours	Carbon/Charcoal	carbon disulfide
TAGGAC	✓			✓	70	16 hrs	Carbon/Charcoal	CS2
Other Recovery Technique: Simple Headspace								
TFHQF6	✓			✓	80	2 hours	Carbon/Charcoal	Pentane
TGG2AL	✓			✓	70	12-16 hours	Carbon/Charcoal	Carbon Disulfide
TVR4P4	✓		✓			approx. 16 hours	Carbon/Charcoal	Pentane/CS2
TWPV2V	✓			✓	70	3 days	Carbon/Charcoal	Diethyl Ether
TX4GDH	✓			✓	90	16 hours	Carbon/Charcoal	Carbon Disulfide

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
U7QEFQ	✓			✓	67	4 hours	Carbon/Charcoal	carbon disulfide
Other Recovery Technique: solvent extraction with carbon disulfide								
U9DJ49	✓			✓	84.9-87.7	2 hours	Carbon/Charcoal	Carbon disulfide
UE43H6	✓			✓	67	22 hours	Carbon/Charcoal	Carbon Disulfide
UFC2K7		✓		✓	70	15 Hours	Carbon/Charcoal	Carbon Disulfide
UFGPCU	✓			✓	80	8h00	Carbon/Charcoal	Dichloromethane + Butan-1-ol
UHMF28	✓			✓	77	3 hours	Carbon/Charcoal	carbon disulfide
UHMNGY	✓			✓	75	16 hrs	Carbon/Charcoal	Carbon disulfide
UK4MGU	✓			✓	70	16 hours	Carbon/Charcoal	Carbon Disulfide
UMWKNZ		✓		✓	100		Tenax	Thermal
UNBLQ8	✓			✓	70	14.5	Carbon/Charcoal	CS2
Other Recovery Technique: Simple headspace								
UNTFRH	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
UP324J	✓			✓	~60	~16 hours	Carbon/Charcoal	carbon disulfide
UQXNH9								
UTYUVT	✓			✓	50	10min	SPME	Thermal
UZGX73	✓			✓	75C	4h	Tenax TA	
UZXAP8		✓		✓	100	10 min	Tenax-TA	Thermal
VCRQD9	✓			✓	80	16 hours	Carbon/Charcoal	Carbon Disulfide
VDKNLF	✓			✓	70	3 hours	Carbon/Charcoal	pentane
Other Recovery Technique: pentane solvent extract								
VMCKHV	✓			✓	65	16 hrs	Carbon/Charcoal	CS2
VQP47P	✓			✓	80	12-16 hours	Carbon/Charcoal	carbon disulfide
VZYRJ3	✓		✓	✓	80	~24.5 hours rm temp/ ~4 hours heated	Carbon/Charcoal	carbon disulfide
W3JKUQ	✓			✓	80	17	Carbon/Charcoal	Carbon Disulfide
Other Recovery Technique: Direct Headspace								
W6UYH6	✓		✓			16 hours	Carbon/Charcoal	Carbon Disulfide
Other Recovery Technique: Manual cold Headspace Injection								
W8GHJ3	✓			✓	70	2 1/2 hours	Carbon/Charcoal	carbon disulfide
W8UACJ	✓			✓	~65	16 hours	Carbon/Charcoal	Carbon disulfide
W8WYH3	✓			✓	65	16 hours	Carbon/Charcoal	Carbon Disulfide
Other Recovery Technique: Static Headspace - 60 degrees for 10 min								
W94XFB	✓			✓	70	30minutes	Carbon/Charcoal	Dichloromethane, Thermal

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
W97KU4	✓			✓	60	16hrs.	Carbon/Charcoal	Carbon Disulfide
W9PXQ9	✓			✓	65	16 hours	Carbon/Charcoal	Carbon disulfide
W9TU9E	✓			✓	65	16hrs	Carbon/Charcoal	carbon disulfide
WAZBXW	✓			✓	70	16 hours	Carbon/Charcoal	Carbon Disulfide
WLTW4R	✓			✓	80	overnight	Carbon/Charcoal	CS2C26
WPCUTH	✓			✓	65	16 hours	Carbon/Charcoal	Dichloromethane
WQMMTC	✓			✓	80			
WRGMKV	✓		✓	✓	80	20 hours	Carbon/Charcoal	Pentane
WT9HAP	✓			✓	65	15 hours	Carbon/Charcoal	carbon disulfied
WZRN7W	✓			✓	71	16.5 hours	Carbon/Charcoal	Carbon Disulfide
WZXNED	✓			✓	110		Tenax	Thermal
Other Recovery Technique: SPME								
X7RHG4	✓			✓	60	16 hours	Carbon/Charcoal	carbon disulfide
XERZX2	✓			✓	80	2 hours	Carbon/Charcoal	Carbon Disulfide
Other Recovery Technique: Simple Headspace								
XRW3D4	✓			✓	80	21 hours	Carbon/Charcoal	Carbon Disulfide
XTURX6	✓			✓	65	~16 hours	Carbon/Charcoal	CS2
XW4N68	✓			✓	66	~15 hours (overnight)	Carbon/Charcoal	Carbon Disulfide
XZRYLZ	✓			✓	90		Carbon/Charcoal	pentane and carbon sulphide
YA8VRV	✓			✓	70	16 hours	Carbon/Charcoal	Carbon disulfide
YB96V9	✓			✓	60	2min	SPME	Thermal
Other Recovery Technique: Liquid Extraction								
YBQ2GG	✓			✓	80	8 Hours	Carbon/Charcoal	Acetone
YE82DT		✓	✓	✓	130	n/a	Tenax TA 60/80 mesh	Thermal
YFYGQ6	✓			✓	~80	~16 hours	Carbon/Charcoal	Carbon disulfide
YNDRBX	✓			✓	65	16 Hours	Carbon/Charcoal	Carbon Disulfide
YVT8NM	✓			✓	60	16	Carbon/Charcoal	CS2
Z37HBM	✓			✓	70	16 hours	Carbon/Charcoal	Pentane
ZBHG6X	✓			✓	78	16 hours	Carbon/Charcoal	Carbon Disulfide
ZCW2VM	✓			✓	~67	~4 hrs	Carbon/Charcoal	Carbon Disulfide
ZFFXJD	✓			✓	40	10 min	SPME (DVB/CAR/PDMS)	Thermal
ZJCKC2	✓			✓	60	16 hours	Carbon/Charcoal	Carbon Disulfide

TABLE 2

WebCode	Adsorption Headspace		Adsorption Temp			Adsorption Duration	Adsorbent	Desorption
	Passive	Dynamic	Rm Temp	Heated	(°C)			
ZJHU98	✓		✓	✓	80	1 hour, 15 min and 30 min	spme carbox pdms	Thermal
ZK6HK8	✓		✓			3 min	SPME	Thermal
ZN9744	✓			✓	40	5min	SPME	Thermal
Other Recovery Technique: SPME-100um PDMS								
ZT29AN	✓			✓	~80	overnight	Carbon/Charcoal	CS2/C26
ZUFRW8	✓		✓	✓	60	10 min	Carbon/Charcoal, carboxen SPME	
ZUUCKB	✓			✓		8.5 hours	Carbon/Charcoal	CS2
ZVLCJ8	✓		✓	✓	70	3 min	SPME	Thermal
Other Recovery Technique: solvent extraction with hexane								
ZWNDX8	✓		✓	✓	60		Carbon/Charcoal	toluene and carbon disulfide
ZXWYFZ	✓			✓	87	4 hours	Carbon/Charcoal	Diethyl Ether
ZYPXN8	✓		✓			16 hrs	Carbon/Charcoal	CS2

Response Summary

Participants	Adsorption Headspace		Adsorption Temp		Adsorbent		Desorption	
	Passive	Dynamic	Rm Temp	Heated	Carbon/Charcoal	Other	Thermal	Solvent
297	274	14	40	267	240	40	39	241

Identification Techniques

TABLE 3

WebCode	GC	GC/MS	Other	WebCode	GC	GC/MS	Other	WebCode	GC	GC/MS	Other
2DPU3W		✓		4XNMHY		✓		9ZXG6L		✓	
2F9UFQ		✓	odor assessment	62JC4J		✓		A7YUMG		✓	
2GHFTT		✓		639VPH		✓		A8PPVQ		✓	
2JAE9C		✓		6BLP3Y		✓		ACHW98		✓	
2LZWNW		✓		6H7AJY		✓		AHCM2X		✓	
2MA7CN		✓		6L7W2N		✓		AHXJMQ		✓	
2UU2GX		✓		73QMBT		✓		ALRKLK	✓	✓	
2VNMDA		✓		76RBTH		✓		ALUTGK		✓	GC-FID
2XCTF2		✓		76UXAW		✓		AQK7CG		✓	
2ZELLT	✓	✓		7E6YVW		✓		AVWWCM		✓	
329L8B		✓		7EGYP7		✓		AYDGNW		✓	
34CGNT		✓		7FCJD6		✓		B6J6HV		✓	
367V7W		✓		7K9MKW		✓		B8LP7A		✓	
38CTJR		✓		7MXXBP		✓		B93ZLM		✓	
38VECH		✓		7V9YWQ		✓		B9ZYDP		✓	
3D2LXX		✓		86EGRU		✓		BABZZN		✓	
3HE9AW		✓		89UDED		✓		BAQZJD		✓	
3Q9G8M		✓		8BULHN		✓		BCYTBC		✓	
3X44Z3		✓	GC/MS-TD	8FTXKF		✓		BJJR6Q		✓	
423UQE		✓		8MTETZ		✓		BLKG9E		✓	
43DPC7		✓		94FFJG		✓		BNFBBV		✓	
462AY2		✓		9BU6JV		✓		BRTFJP		✓	
497EPA	✓	✓		9CQWUM		✓		BRXT7L		✓	
4HDY7K		✓		9EVKCX		✓		BTN4VT		✓	
4KJEL3		✓		9EY8QQ		✓	GC-FID	BWQXX6		✓	
4KUZX6		✓		9FLV3Q		✓		BZ9VRL		✓	
4KXMBC		✓		9M84UR		✓		C92P3P		✓	
4LUG82		✓		9NZ23X		✓		CDR9XT		✓	
4U8AJX		✓		9QAHG2		✓		CFHK7U		✓	
4WBAD3		✓		9U7B7Q		✓		CTKDBB		✓	

TABLE 3

WebCode	GC	GC/MS	Other
CW3TZN		✓	
CW4AY2		✓	
D3MF7D		✓	
DARB9L	✓	✓	
DBXCVY		✓	
DCQA47		✓	
DUUHNY		✓	
DV3WPD		✓	
DW2XXQ		✓	
DWYN3Q		✓	
DX7MZZ		✓	
DXUV7X		✓	
DYNGYN	✓	✓	
E66CEH		✓	
E67RHN		✓	
EF9K3V		✓	
EJPRHH		✓	
EKLN7X		✓	
ENXD6U		✓	
F88Y2L		✓	
FEP6ZD		✓	
FFMUKF		✓	
FGG4EC		✓	
FHPW4P		✓	
FL8DNB		✓	
FMGH2Y		✓	
FTRMXT		✓	
FU6HXK		✓	GC/FID
FWDUDZ	✓	✓	
FYHM6D	✓	✓	
FZ4RLJ		✓	
FZ8E2C		✓	
G44EXL		✓	
G7BYZ8		✓	
GAEXAE		✓	
GGDGAN		✓	
GH8K8K		✓	
GJGFKG		✓	
GJZHFR		✓	
GQJNH8		✓	
GQZVJ2		✓	
GRRVJX		✓	
GYX7PB		✓	
H2DCRX		✓	
H4NVPE		✓	
H6DRZ3		✓	
H7V37L		✓	
HD8V4H		✓	
HL4Q43		✓	
HN8HVF		✓	
HPMMRR		✓	
HUXGJN		✓	
HVNWYK		✓	
HXCFZH		✓	
J3GQAN		✓	
J4YJPZ		✓	
JAJYVH		✓	
JDMGAD		✓	
JN2NRZ		✓	FID
JVH73L		✓	
JW3PE3		✓	
K3NEN3		✓	
K6REH8	✓	✓	odor assessment
KCRWWJ		✓	
KDZHFD	✓	✓	
KJ4CP9		✓	
KKL2QK		✓	
KNJFDB		✓	
KTEABC	✓	✓	
KU7PNM		✓	
KU9V7N		✓	
KYF3CD		✓	
KYGTKG		✓	
L2ND3P		✓	
L94ZU7	✓	✓	
LPTP22		✓	
LQ49T6		✓	
LU6VG8		✓	
LWMEK6		✓	
LZEQN3		✓	
M2FZRY		✓	
MB8YF4		✓	
MCFLZH		✓	
MD8J9P		✓	
MT3YEB	✓	✓	
MUFYLJ		✓	
MUZCWW		✓	
MVPMPB		✓	
N2DMPN		✓	
NDQJBE		✓	
NDUTXQ	✓	✓	
NEJGJL		✓	
NHJPLB		✓	

TABLE 3

WebCode	GC	GC/MS	Other
NHK39N		✓	
NHNPMG		✓	
NJCMUG		✓	
NMCXPG		✓	
NWM7FJ		✓	GC/FID
NXDEEL	✓	✓	
NYURJ4			TD-GC/MS
P3NCJ6		✓	
P6BMYX		✓	
PCETCF		✓	
PEGVXB		✓	
PGHGQW		✓	
PHFKND		✓	
PJ9HWK		✓	
PMDMPD		✓	
PMRXJB		✓	
PV4T37		✓	
PVL4CC		✓	
Q2737D		✓	
Q2BC9B		✓	
Q4CKBZ		✓	
Q98AR8	✓		
QED7DT		✓	
QEQGAC		✓	
QHVL47		✓	
QXA9F4		✓	
RGEBQD		✓	
RGGZVB		✓	GC/FID
RGY3LJ		✓	
RHRG4M		✓	
RJ6RL8		✓	SPME
RJM4HC		✓	
RKRFX8		✓	
RRD42P		✓	
RT8RFE		✓	
RTQT3G		✓	
RUJQAN		✓	
RZAY29		✓	
T2ZMQH		✓	
T3BMT4	✓	✓	
T7XM7J	✓	✓	
T9WGTM		✓	
TAGGAC		✓	
TFHQF6			GC/MS-FID
TGG2AL	✓	✓	
TVR4P4		✓	
TWPV2V		✓	
TX4GDH	✓	✓	
U7QEFQ		✓	
U9DJ49		✓	
UE43H6		✓	
UFC2K7		✓	
UFGPCU		✓	
UHMF28		✓	
UHMNGY	✓	✓	Odor Assessment
UK4MGU		✓	
UMWKNZ		✓	
UNBLQ8		✓	
UNTFRH		✓	
UP324J		✓	
UQXNH9			Passive Headspace GC/MS
UTYUVT		✓	
UZGX73		✓	
UZXAP8			Thermal Desorption GC/MS
VCRQD9		✓	
VDKNLF		✓	
VMCKHV		✓	
VQP47P		✓	
VZYRJ3		✓	
W3JKUQ		✓	
W6UYH6		✓	
W8GHJ3		✓	
W8UACJ		✓	
W8WYH3		✓	
W94XFB		✓	
W97KU4		✓	
W9PXQ9		✓	
W9TU9E		✓	
WAZBXW		✓	
WLTW4R		✓	
WPCUTH		✓	
WQMMTC	✓	✓	
WRGMKV		✓	
WT9HAP		✓	
WZRN7W		✓	
WZXNED		✓	
X7RHG4		✓	
XERZX2	✓	✓	
XRW3D4		✓	
XTURX6		✓	
XW4N68		✓	
XZRYLZ	✓	✓	

TABLE 3

WebCode	GC	GC/MS	Other	WebCode	GC	GC/MS	Other	WebCode	GC	GC/MS	Other
YA8VRV		✓									
YB96V9		✓									
YBQ2GG		✓									
YE82DT		✓									
YFYGQ6		✓									
YNDRBX		✓									
YVT8NM		✓									
Z37HBM	✓										
ZBHG6X		✓									
ZCW2VM		✓									
ZFFXJD		✓									
ZJCKC2		✓									
ZJHU98		✓									
ZK6HK8		✓									
ZN9744		✓									
ZT29AN		✓									
ZUFRW8		✓									
ZUUCKB		✓									
ZVLCJ8		✓									
ZWNDX8		✓									
ZXWYFZ		✓									
ZYPXN8		✓									

Response Summary

Participants	GC	GC/MS
297	**24**	**291**

Conclusions

TABLE 4

WebCode	Conclusions
2DPU3W	An ignitable liquid classified as gasoline was identified in Item 1. An ignitable liquid classified as a medium petroleum distillate (MPD) was identified in Item 2. Examples of MPDs include, but are not limited to, some charcoal lighter fluids. No recognizable ignitable liquids were identified in Item 3.
2F9UFQ	The following methodologies were used in the examination of this case: visual examination, odor assessment, GC-FID and GC-MS. Examination of item #1 revealed the presence of residual gasoline. Examination of item #2 revealed the presence of a medium petroleum distillate. Medium petroleum distillates include some charcoal starters and some paint thinners. Examination of item #3 failed to reveal the presence of ignitable liquids.
2GHFTT	GC/MS (gas chromatography/mass spectrometry) analysis of concentrated headspace vapors from item #1 - 19-536-1 revealed the presence of components having retention times and selected ion profiles characteristic of components of a weathered gasoline. GC/MS (gas chromatography/mass spectrometry) analysis of concentrated headspace vapors from Item #2 - 19-536-2 revealed the presence of compounds having retention times and mass ions characteristic of components of a medium petroleum distillate. Medium petroleum distillate products include some paint thinners, some charcoal starters, and some dry cleaning products. GS/MS (gas chromatography/mass spectrometry) analysis of concentrated headspace vapors from item #3 - 19-536-3, submitted as a comparison blank, revealed the presence of compounds having retention times and mass ions characteristic of pyrolysis products and/or matrix components.
2JAE9C	Gasoline was identified on Item 1. Gasoline is an ignitable liquid. A medium petroleum distillate (MPD) was identified on Item 2. Medium petroleum distillates are ignitable liquids, examples of which include some charcoal starters and some paint thinners. The MPD on Item 2 was indicative of an odorless (de-aromatized) product. No ignitable liquid residues were identified on Item 3 (comparison sample). Items 1 through 3 were examined using heated headspace followed by analysis with gas chromatography-mass spectrometry (GC-MS) and passive adsorption/elution with GC-MS analysis.
2LZWNW	An ignitable liquid classified as gasoline was identified in Item 1. An ignitable liquid classified as a medium petroleum distillate was identified in Item 2. Examples of medium petroleum distillates include, but are not limited to, some charcoal lighter fluids. No recognizable ignitable liquids were identified in Item 3.
2MA7CN	Exhibit 1 contained gasoline, which is an ignitable liquid. Exhibit 2 contained a medium petroleum distillate (MPD), which is an ignitable liquid. Examples of MPD's include some charcoal starters, some paint thinners, and mineral spirits. No ignitable liquids were identified in Exhibit 3.
2UU2GX	Analysis of Item 1 revealed the presence of gasoline. Analysis of Item 2 revealed the presence of a medium petroleum distillate (MPD). Examples of this class are some charcoal starters, some paint thinners, and some dry cleaning solvents.
2VNMDA	Item 1 - An ignitable liquid was identified. This liquid is gasoline. Item 2 - An ignitable liquid was identified. This liquid is a medium petroleum distillate. Examples of commercial products containing medium petroleum distillates include some charcoal lighter fluids and some mineral spirits or paint thinner products.
2XCTF2	Item 1 was found to contain gasoline. Item 2 was found to contain a medium-range petroleum distillate. Examples of medium-range petroleum distillates include, but are not limited to, some charcoal starters and some paint thinners. Item 3 was analyzed for comparison purposes.
2ZELLT	It was found that Item 1 gasoline, Item 2 included medium petroleum distillates.
329L8B	Item 1 was found to contain gasoline. Item 2 was found to contain a dearomatized medium petroleum distillate. Examples of a dearomatized medium petroleum distillate include but are not limited to some charcoal lighter fluids. No ignitable liquids were detected in item 3.
34CGNT	The analysis of Item 1 revealed the presence of gasoline in the sample. The analysis of Item 2 revealed the presence of a medium petroleum distillate in the sample (ex. some fire-starters, some paint thinners, etc.). The analysis of Item 3 was negative for the presence of ignitable liquid residue.

TABLE 4

WebCode	Conclusions
367V7W	Results, Opinions, and Interpretations: All items were extracted using passive adsorption/elution and were analyzed using Gas Chromatography/Mass Spectrometry (GC/MS). Item 1: Gasoline was identified. Item 2: Medium Petroleum Distillate residue was identified. Examples of this include but are not limited to some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3: No Ignitable Liquids were identified. This item is listed as a comparison sample. This comparison sample was analyzed and the results were used in evaluating possible matrix influences on other submitted sample(s).
38CTJR	Item 1 was analyzed and determined to contain gasoline. Item 2 was analyzed and determined to contain a medium petroleum distillate. Examples of a medium petroleum distillate include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3 was analyzed, and no common ignitable liquid residue was detected. This conclusion is based upon gas chromatography-mass spectrometry (GC-MS) analysis of concentrated headspace vapors from each sample.
38VECH	FİRE ACCELARATOR GASOLİNE RESİDUES WERE DETECTED ON SAMPLE 1. FİRE ACCELARATOR MEDİUM OİL DİSTİLATE RESİDUES WERE DETECTED ON SAMPLE 2
3D2LXX	1) Gasoline was identified in item #001. 2) A medium dearomatized distillate was identified in item #002. Examples of products of this type include some paint thinners and some charcoal lighter fluids
3HE9AW	Item #1- the presence of Gasoline was identified in this sample. Item #2- the presence of a Medium Petroleum Distillate was identified in this sample.
3Q9G8M	Exhibit 1 contained gasoline, which is an ignitable liquid. Exhibit 2 contained a medium petroleum distillate, which is an ignitable liquid. Examples of products that contain medium petroleum distillates include some paint thinners or strippers, some charcoal starters, and some adhesive removers. No ignitable liquids were detected in Exhibit 3.
3X44Z3	Item 1, a piece of white cloth remnant from bedroom curtains was found to contain Gasoline product. According to ASTM E1618-14 Ignitable Liquid Classification Scheme, Examples of these Gasoline products are all brands, including gasohol and E-85. Item 2, a piece of white cloth remnant from bed sheets was found to contain Medium Petroleum Distillate products. According to ASTM E1618-14 Ignitable Liquid Classification Scheme, Examples of these Medium Petroleum Distillate Products are include but are not limited to some charcoal starters, some paint thinners and some dry cleaning solvents. No ignitable liquid was detected in Item 3, a piece of cloth substrate that is intended as a comparison blank in a nylon evidence bag.
423UQE	[No Conclusions Reported.]
43DPC7	Gasoline was identified in Item #1. A petroleum distillate in the medium range was identified in Item #2. Examples of this include some charcoal starters, some paint thinners, and some dry cleaning solvents. There were no ignitable liquids identified in Item #3.
462AY2	Gasoline was identified in Specimen #001. A Medium Petroleum Distillate was identified in Specimen #002. Examples of Medium Petroleum Distillates include paint thinners, some charcoal starters, and cleaning solvents. No ignitable liquids were detected in Specimen #003. The specimens were extracted by Passive Concentration Headspace extraction with activated charcoal and analyzed by Gas Chromatography/ Mass Spectrometry. Disclaimer: The absence of an ignitable liquid does not rule out the possibility that ignitable liquids were present at the fire scene. Ignitable liquids are volatile compounds that may have evaporated, been totally consumed in a fire, environmentally altered or removed, or otherwise indistinguishable from background material.
497EPA	A gasoline residue was identified in Item 1-1 ("Test No. 19-536 Item 1"). A medium petroleum distillate was identified in Item 1-2 ("Test No. 19-536 Item 2"). Some examples of medium petroleum distillates would include some brands of charcoal lighter fluids, paint thinners, and mineral spirits.
4HDY7K	Item 1: This item consists of white fabric. This item was found to contain gasoline. Item 2: This item consists of white fabric. This item was found to contain a medium petroleum distillate. Item 3: This item consists of white fabric. No ignitable liquids were identified in this item.
4KJEL3	Gasoline was identified in Item 1. A de-aromatized medium petroleum distillate was identified in Item 2. Examples of de-aromatized medium petroleum distillates include, but are not limited to, some

TABLE 4

WebCode	Conclusions
	odorless mineral spirits and odorless charcoal starters. No ignitable liquid residues were detected in Item 3. Items 1, 2, and 3 were examined visually and using gas chromatography/mass spectroscopy (GC/MS). Headspace analysis and passive adsorption/elution extraction was performed on Items 1, 2, and 3. The activated charcoal strips used to collect volatile organic compounds with an adsorption/elution technique are contained in separate plastic vials, placed in separate, heat-sealed fire debris bags, and were repackaged inside the original items.
4KUZX6	Control bag had no ignitable liquid residue. Item 1 contains gasoline and medium petroleum distillates. Item 2 contains medium petroleum distillates.
4KXMBC	Gasoline was detected in Item 1. A medium petroleum distillate was detected in sample 2. Medium petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners and some dry cleaning solvents.
4LUG82	Analysis by Gas Chromatography/Mass Spectrometry of the plastic bags and cloth (Item 1A) reveals the presence of gasoline. Analysis by Gas Chromatography/Mass Spectrometry of the plastic bags and cloth (Item 1B) reveals the presence of a medium petroleum distillate (MPD). Examples of MPD's include: mineral spirits, some paint thinners, some charcoal starters, some torch fuels, some lamp oils, some dry cleaning solvents and some solvents for insecticides and polishes. Analysis by Gas Chromatography/Mass Spectrometry of the plastic bags and cloth (Item 1C) fails to reveal the presence of any ignitable liquids. The procedure employed does not detect the presence of light volatiles such as certain alcohols and acetone.
4U8AJX	A residue of gasoline was detected in Item 1. A residue of a medium petroleum distillate was detected in Item 2. Examples of a medium petroleum distillate include some charcoal starters, some paint thinners, and some dry-cleaning solvents. No ignitable liquids were detected in Item 3. The samples were extracted by passive adsorption-elution techniques and analyzed by gas chromatography with mass spectrometry.
4WBAD3	Item 1: Gasoline found. This includes any brand or octane, as well as any alcohol-blended gasoline. Item 2: A medium petroleum distillate found. Examples of medium petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3: No ignitable liquids found.
4XNMHY	Item 1: Gasoline was chromatographically detected. Item 2: Medium petroleum distillate was chromatographically detected. Item 3: Negative: No ignitable liquids were chromatographically detected. Gasoline: Examples of gasoline include all grades and brands of automobile gasoline, including gasohol and E85. Medium Petroleum Distillate: Examples of a medium petroleum distillate include mineral spirits, some charcoal starters, some torch fuels, some lamp oils, some paint thinners, some solvents for insecticides and polishes, and some dry cleaning solvents. Negative: The absence of detectable levels of ignitable liquid residues can be due to several factors, including destruction by the inherent nature of fire, evaporation prior to collection and analysis, fire suppression activities, improper packaging of sample, or lack of use of ignitable liquids.
62JC4J	Item 1: Findings: aromatics, napthalenes, indanes. Assessment: Due to the findings it has to be considered that the fire debris contained gasoline. Item 2: Findings: alkanes (n-C9 to n-C12) and further aliphatics. Assessment: Due to the findings it is most probable that the fire debris contained a product labelled as one of the following: white Spirit, mineral spirit, charcoal starter, paint thinner, dry cleaning solvent. Conclusion: Gasoline (item 1) as well as white spirit (item 2) are ignitable liquids. Therefore both ignitable liquids are suitable for arson.
639VPH	Item 1: The submitted sample was analyzed using a passive headspace technique and gas chromatography/mass spectrometry (GC/MS). Gasoline was identified in the sample. Item 2: The submitted sample was analyzed using a passive headspace technique and gas chromatography/mass spectrometry (GC/MS). A Medium Petroleum Distillate was identified. Examples of this type ignitable liquid include: some charcoal starters, some paint thinners and some dry cleaning solvents. Item 3: The submitted material was analyzed using a passive headspace technique and gas chromatography/mass spectrometry (GC/MS). No ignitable liquid was identified.
6BLP3Y	Item 1.1: Passive Headspace Concentration/Gas Chromatography-Mass Spectrometry disclosed the following: Gasoline. Item 1.2: Passive Headspace Concentration/Gas Chromatography-Mass

TABLE 4

WebCode	Conclusions
	Spectrometry disclosed the following: Medium (C8-C13) petroleum distillate. Examples of a medium (C8-C13) petroleum distillate include some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 1.3: Passive Headspace Concentration/Gas Chromatography-Mass Spectrometry disclosed the following: No ignitable liquids/ignitable liquid residues identified. The identification of an ignitable liquid / ignitable liquid residue does not necessarily lead to the conclusion that a fire was incendiary in nature. The absence of an ignitable liquid / ignitable liquid residue does not preclude the possibility that ignitable liquids were present.
6H7AJY	Items 1, 2, and 3 were extracted using a passive adsorption-elution technique. The Item 1, 2, and 3 extracts were examined using Gas Chromatography-Mass Spectrometry (GC-MS). The Item 1 extract contained gasoline. The Item 2 extract contained a medium petroleum distillate which can be found in, but is not limited to, some mineral spirits, paint thinners and charcoal starter fluids. No ignitable liquids were identified in the Item 3 extract.
6L7W2N	RESULTS: Gas chromatography and mass spectrometry were used to analyze the samples in items #1-1, #1-2, #1-3. Gasoline was present in item #1-1. A mid-range petroleum distillate was present in item #1-2. Common products containing a mid-range petroleum distillate are: some charcoal starters, some paint thinners, and some dry cleaning solvents. No ignitable liquids were identified in item #1-3.
73QMBT	Item #1 - Gasoline, an ignitable liquid, was identified The gasoline class of ignitable liquids includes all brands and grades of automotive gasoline including gasohol and E85. Item #2 - An ignitable liquid consistent with a medium (C9-C12) petroleum distillate was identified. Examples of the medium petroleum distillate class of ignitable liquids include mineral spirits, paint thinners, charcoal lighter fluids, torch fuels, spray lubricants, deck sealers, kerosene, varnishes, spray lubricants, and insecticides.
76RBTH	Gas Chromatographic Analysis (GC-MS; Passive Headspace Concentration and Heated Headspace Sampling (Item #01.01 - #01.03)) of the submitted material yielded the following results and conclusions: Item #01.01 - Gasoline was Identified. Item #01.02 - A Medium Petroleum Distillate was Identified. Examples of a Medium Petroleum Distillate of the type detected include some paint thinners, some charcoal lighter fluids, and some mineral spirits. Item #01.03 - Ignitable Liquid Residue was NOT identified,submitted as a comparison sample.
76UXAW	Sample 1: Gasoline. Sample 2: Petrol
7E6YVW	Item 1 was analyzed by gas chromatography/mass spectrometry and determined to contain a gasoline sample in which the concentration of the components has been altered by evaporation. Item 2 was analyzed by gas chromatography/mass spectrometry and determined to contain a medium Petroleum Distillate ASTM class ignitable liquid. Examples of this ASTM class are some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3 was analyzed by gas chromatography/ mass spectrometry; however, ignitable liquids could not be detected.
7EGYP7	Item 1: Gasoline was present. Examples include all brands and grades of domestic gasoline. Item 2: A medium petroleum distillate was present. Examples include some charcoal starters, paint thinners and dry clean solvents. Item 3: No ignitable liquids identified.
7FCJD6	1- Gasoline was identified in Item-1. 2- De-Aromatized Medium Petroleum Distillates (C9-C12) were identified in Item-2. Examples of Medium Petroleum Distillates include but not limited to some charcoal starters, some paint thinners and some dry cleaning solvents. 3. No ignitable liquid residue was identified in Item-3.
7K9MKW	Item 1: Gasoline was identified in Item 1. Item 2: A medium petroleum distillate product was identified in Item 2. Examples of medium petroleum distillate products include, but are not limited to, some charcoal starters, some paint thinners and some dry cleaning solvents.
7MXXBP	Item 1: An ignitable liquid residue was detected- gasoline. Gasoline may originate from any grade or brand of gasoline or gasohol. Item 2: An ignitable liquid residue was detected- a medium petroleum distillate. Medium petroleum distillates (MPDs) may originate from some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3: No ignitable liquid residues detected. Item 3 was submitted as a comparison sample for Items 1 and 2.

TABLE 4

WebCode	Conclusions
7V9YWQ	The above items were examined in accordance with [Laboratory] methods and procedures based upon ASTM International standard test methods and practices. The samples were extracted using passive headspace sampling and analyzed via gas chromatography - mass spectrometry. An extract generated from each item will be returned with the evidence (Item #1A, Item #2A, Item #3A). Item #1: An ignitable liquid residue was detected- gasoline. Gasoline may originate from any brand or grade of gasoline or gasohol. Item #2: An ignitable liquid residue was detected- a medium petroleum distillate. Medium petroleum distillates (MPDs) may originate from some charcoal starters, some paint thinners, and some dry cleaning solvents. Item #3: No ignitable liquid residues were detected. Item #3 was submitted as a comparison sample for Item #1 and Item #2.
86EGRU	Item 1 was analyzed for the presence of ignitable liquid residues and Gasoline was detected. Item 2 was analyzed for the presence of ignitable liquid residues and a Medium Petroleum Distillate was detected. Examples include some charcoal starters and some paint thinners. Item 3 was submitted as a comparison sample.
89UDED	ITEM 1:Gasoline and medium to heavy petroleum product dedected. ITEM 2:Medium petroleum product dedected
8BULHN	Item 1: Gasoline and a light miscellaneous product was detected. Examples can include brands of gasoline, some aviation gasolines and some blended products. Item 2: A medium dearomatized petroleum distillate was detected. Examples include some charcoal starters, some paint thinners and some cleaning products.
8FTXKF	Item 1A was analyzed utilizing Gas Chromatography/Mass Spectrometry (GC/MS). This item contains an ignitable liquid in the gasoline class. The results apply only to the sample(s) received. The evidence, including the sample used in analysis, will be returned to the submitting agency. Item 1B was analyzed utilizing Gas Chromatography/Mass Spectrometry (GC/MS). This item contains an ignitable liquid in the medium petroleum distillate class. Examples of products in the medium petroleum distillate class include some charcoal starters, paint thinners, lamp oils, torch fuels and dry cleaning solvents. The results apply only to the sample(s) received. The evidence, including the sample used in analysis, will be returned to the submitting agency. Item 1C was analyzed utilizing Gas Chromatography/Mass Spectrometry (GC/MS). No ignitable liquids were identified. It should be noted that ignitable liquids may evaporate or can be totally consumed during a fire. A negative finding of ignitable liquids does not preclude its presence during a fire. The results apply only to the sample(s) received. The evidence, including the sample used in analysis, will be returned to the submitting agency.
8MTETZ	Gasoline was identified in specimen #1. A medium petroleum distillate was identified in specimen #2. Examples of medium petroleum distillates include some paint thinners, charcoal starters, and cleaning solvent. No ignitable liquids were detected in Sp. #3. Specimen #'s 1-3 were extracted by passive concentration headspace with activated charcoal and analyzed by gas chromatography-mass spectrometry. Disclaimer: The absence of an ignitable liquid does not rule out the possibility that ignitable liquids were present at the fire scene. Ignitable liquids are volatile compounds that may have evaporated, been totally consumed in a fire, environmentally altered or removed, or otherwise indistinguishable from background material.
94FFJG	Item 1 (Exhibit 1) – Gasoline was detected. Item 2 (Exhibit 2) – A Medium Petroleum Distillate (MPD) was detected, examples of which include some Charcoal Starters, Paint Thinners or Dry Cleaning Solvents. Item 3 (Exhibit 3) – No Ignitable liquid was detected.
9BU6JV	Item 1: Analysis identified the presence of Gasoline. Gasoline includes all grades, makes and Gasohol. Item 2: Analysis identified the presence of a Medium Petroleum Distillate. Examples of Medium Petroleum Distillates includes Premium Quality Charcoal Starter, some charcoal starters, some paint thinners and some dry cleaning solvents. Item 3 Control: No ignitable liquids detected.
9CQWUM	The exhibit collected of the cloth remnant from the bedroom curtains (item 1) was found to contain petrol residues. Petrol is an ignitable liquid. The exhibit collected of the cloth remnant from the bed sheets (item 2) was found to contain medium petroleum distillate class ignitable liquid residues. Examples of medium petroleum distillate products include some formulations of the following: white spirits, kerosene, low odour/mineral turpentine, lamp oils, the carrier solvent in 2-stroke oils, paint

TABLE 4

WebCode	Conclusions
	thinners, solvents in paints, dry cleaning solvents and lubricants. The exhibit collected of the cloth control (item 3) was found not to contain any detectable ignitable liquid residues.
9EVKCX	Gasoline was identified in Item 1. A de-aromatized medium petroleum distillate (MPD) was identified in Item 2. Examples of de-aromatized MPDs include but are not limited to some odorless charcoal starters and some odorless paint thinners. No ignitable liquids were detected in Item 3. Items 1 – 3 were examined visually and using gas chromatography/mass spectroscopy (GC/MS). Passive adsorption/elution extraction was performed on Items 1 – 3. The activated charcoal strips used to collect volatile organic compounds with an adsorption/elution technique are contained in separate plastic vials, placed in separate, heat-sealed fire debris bags, and each was repackaged inside the original item.
9EY8QQ	CTS Item 1 contained gasoline. CTS Item 2 contained a medium petroleum distillate class ignitable liquid. Examples of medium petroleum distillate products include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. CTS Item 3 contained no ignitable liquid.
9FLV3Q	Item 1A: Gasoline. Item 1B: Medium petroleum distillate ignitable liquid. Examples of medium petroleum distillates are some charcoal starters, some paint thinners, some mineral spirits and some dry cleaning solvents.
9M84UR	On analysis: i. Gasoline was detected on Item 1. ii.A medium petroleum distillate (de-aromatized) product was detected on Item 2. iii. No ignitable liquid was detected on Item 3.
9NZ23X	Gasoline was identified on Item 1. A medium petroleum distillate in the range of C7 to C13 was detected in Item 2. Examples of medium petroleum distillates include some charcoal starters, some paint thinners and some dry-cleaning solvents. No ignitable liquids were identified on Item 3.
9QAHG2	Item 1.1 contained gasoline. Item 1.2 contained a medium petroleum distillate. Examples of which include some charcoal starters, some paint thinners, and some dry cleaning solvents. No ignitable liquids were detected in Item 1.3.
9U7B7Q	Evidence addressed in this report was received into the laboratory on July 31, 2019. Analysis for ignitable liquid residues using Diffusive Flammable Liquid Extraction trapping, followed by Gas Chromatography / Mass Selective Detection: Item #1: Gasoline. Item #2: Medium Petroleum Distillate, examples of which are (but are not limited to) paint thinners, dry cleaning solvents and some brands of charcoal starter fluids. Item #3: No Ignitable Liquid Residues Identified. All evidence will be returned to the submitter.
9ZXG6L	Item 1 (unburnt fabric) - Gasoline identified. Item 2 (unburnt fabric) - Medium petroleum distillate identified. Item 3 (comparison fabric) - No ignitable liquids identified
A7YUMG	Exhibits 1, 2 and 3 were examined using passive headspace concentration and gas chromatography-mass spectrometry (GC-MS). Exhibit 1 contained gasoline, which is an ignitable liquid. Exhibit 2 contained a medium petroleum distillate (MPD), which is an ignitable liquid. Examples of MPDs include some brands of charcoal lighter fluid, some brands of paint thinner and mineral spirits No ignitable liquids were detected in Exhibit 3.
A8PPVQ	Resutls: Item #1: The presence of Gasoline was detected in this sample. Item #2: The presence of a Medium Petroleum Distillate was detected in this sample. Item #3: No ignitable liquids were detected in this sample.
ACHW98	Item 1 - A gasoline profile was detected within the contents of item 1. Slightly elevated levels of alkanes were noted. Item 2 - A medium petroleum distillate profile was detected within the contents of item 2. Item 3 - No ignitable liquid profile was identified within the contents of item 3.
AHCM2X	Sample Preparation: (1) Passive Headspace Extraction. Analytical Methods: (1) Gas Chromatography/Flame Ionization Detection, (2) Gas Chromatography/Mass Selective Detection. Item 1: Gasoline was identified. Item 2: A medium petroleum distillate product was identified. Examples of medium petroleum distillate products include mineral spirits, some paint thinners, and some charcoal starters. Item 3: No ignitable liquids were detected.
AHXJMQ	Item 1: The piece of off-white cloth contains a gasoline ignitable liquid residue. Item 2: The piece of off-white cloth contains a medium petroleum distillate ignitable liquid residue. Examples of this type of

TABLE 4

WebCode	Conclusions
	liquid can include, but are not limited to, some charcoal starters, paint thinner, mineral spirits, and dry-cleaning solvents. Item 3: An ignitable liquid residue was not detected on the piece of off-white cloth.
ALRKLK	Traces of petrol were recovered from Item 1. Traces of an organic mixture containing medium petroleum distillates were recovered from Item 2. Nothing of significance was found with respect to the recovery of ignitable liquid residues from Item 3.
ALUTGK	"Item 1" The exhibit was analysed for the presence of ignitable liquid residues and petrol was detected. "Item 2" The exhibit was analysed for the presence of ignitable liquid residues and medium petroleum distillate was detected. "Item 3" The exhibit was analysed for the presence of ignitable liquid residues and none was detected. Note: Examples of medium petroleum distillates include some charcoal starters, some paint thinners and some dry cleaning solvents.
AQK7CG	On examination and analysis, I found that: (a) ITEM 1 was found to contain gasoline. (b) ITEM 2 was found to contain Petroleum distillate product (include de-aromatize).
AVWWCM	GCMS analysis of Item 1 disclosed the presence of Gasoline. GCMS analysis if Item 2 disclosed the presence of a Medium Petroleum Distillate. Examples of a medium range petroleum distillate include, but are not limited to, some charcoal starters and some paint thinners. GCMS analysis of Item 3: (COMPARISON BLANK)
AYDGNW	Gasoline was identified in Specimen #1. A Medium Petroleum Distillate was identified in Specimen #2. Examples of Medium Petroleum Distillates include paint thinners, some charcoal starters, and cleaning solvents. No ignitable liquids were detected in Specimen #3. Disclaimer: The absence of an ignitable liquid does not rule out the possibility that ignitable liquids were present at the fire scene. Ignitable liquids are volatile compounds that may have evaporated, been totally consumed in a fire, environmentally altered or removed, or otherwise indistinguishable from background material. The specimens were extracted by Passive Concentration Headspace extraction with activated charcoal and analyzed by Gas Chromatography/Mass Spectrometry.
B6J6HV	Gasoline was identified in Item 1. A de-aromatized medium petroleum distillate was identified in Item 2. Examples of a de-aromatized medium petroleum distillate include but are not limited to, some odorless paint thinners and some odorless charcoal starters. No ignitable liquids were detected in Item 3.
B8LP7A	An ignitable liquid classified as gasoline was detected in item 1. An ignitable liquid classified as a medium petroleum distillate was detected in item 2. Examples of medium petroleum distillates include charcoal starters, paint thinners, or mineral spirits. No ignitable liquid was detected in item 3.
B93ZLM	Item 001-001: Gasoline and a Light Isoparaffinic product were identified. Item 001-002: A medium petroleum distillate was identified. Item 001-003: No ignitable liquids were identified.
B9ZYDP	[No Conclusions Reported.]
BABZZN	Gasoline was detected in Item 1. A medium petroleum distillate was detected in Item 2. Medium petroleum distillates include, but are not limited to, some charcoal starters and lamp oils, mineral spirits, wood treatments and preservatives, dry cleaning solvents, fabric water repellents and protectors, automotive parts cleaners, spray lubricants, varnishes, kerosene substitutes, insecticide solvents and numerous other specialty application solvents and thinners. No ignitable liquids were detected in Item 3.
BAQZJD	Upon analysis I found:- 1. Item 1 to contain bear of gasoline. 2. Item 2 to contain bear of Petrolleum Distillates (including De-Aromatized) subclass Medium.
BCYTBC	Item 1 consists of a white fabric cutting. This item was found to contain gasoline. Item 2 consists of a white fabric cutting. This item was found to contain a medium petroleum distillate. Item 3 (Blank Comparison Sample) consists of a white fabric cutting. No ignitable liquids were identified in this item.
BJJR6Q	Item 1 contained residues consistent with the gasoline class of ignitable liquids. This class of ignitable liquids includes all brands and grades of automotive gasoline. Item 2 contained residues consistent with the medium petroleum distillate class of ignitable liquids. Examples of this class of ignitable liquids include: mineral spirits, some paint thinners, some charcoal starters, dry cleaning solvents,

TABLE 4

WebCode	Conclusions
	some torch fuels, some solvents for insecticides and polishes, and some lamp oils. No ignitable liquid residues were detected in Item 3.
BLKG9E	On analysis, I found that Item 1 was consistent with gasoline while Item 2 was consistent with Medium Petroleum Distillate.
BNFBBV	Analysis by Gas Chromatography/Mass Spectrometry of the plastic bags and cloth (Item 1A) reveals the presence of gasoline. Analysis by Gas Chromatography/Mass Spectrometry of the plastic bags and cloth (Item 1B) reveals the presence of a medium petroleum distillate (MPD). Examples of MPD's include: mineral spirits, some paint thinners, some charcoal starters, some torch fuels, some lamp oils, some dry cleaning solvents and some solvents for insecticides and polishes. Analysis by Gas Chromatography/Mass Spectrometry of the plastic bags and cloth (Item 1C) fails to reveal the presence of any ignitable liquids. The procedure employed does not detect the presence of light volatiles such as certain alcohols and acetone.
BRTFJP	Item 1: Ignitable liquid residues containing gasoline. Item 2: Ignitable liquid residues in the range of a medium petroleum distillate. Item 3: No ignitable liquid residues were detected
BRXT7L	Item 1 contains gasoline. Item 2 contains a medium petroleum distillate, examples of which include charcoal starters, mineral spirits and paint thinners. Item 3 no ignitable liquids were detected/identified.
BTN4VT	RESULTS and INTERPRETATIONS: Gasoline was detected in the extract of Item #1. A medium petroleum distillate was detected in the extract of Item #2. Examples of medium petroleum distillates include some charcoal starters, some paint thinners, and some torch fuels. No ignitable liquids were detected in the extract of Item #3.
BWQXX6	Gasoline was identified in Item 1. A de-aromatized medium petroleum distillate (MPD) was detected in Item 2. Examples of de-aromatized medium petroleum distillates include, but are not limited to, some odorless mineral spirits, some odorless charcoal starters, and some odorless paint thinners. No ignitable liquid residues were detected in Item 3.
BZ9VRL	Item 1 contains gasoline. Item 2 contains a medium petroleum distillate, examples of which include charcoal starters, mineral spirits and paint thinners. Item 3 no ignitable liquids were detected/identified.
C92P3P	Item 1 contained Gasoline. Item 2 Contained a medium petroleum distillate examples of which are some charcoal starters, paint thinners, and dry cleaning solvents.
CDR9XT	Item 1: Gasoline found. This includes any brand or octane, as well as any alcohol-blended gasoline. Item 2: A medium petroleum distillate found. Examples of medium petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3: No ignitable liquids found.
CFHK7U	001Q1: Gasoline was identified. 001Q2: A medium petroleum distillate was identified. 001K1: Analyzed for comparison. Gasoline includes all brands and types including gasohol. Examples of a medium petroleum distillate include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents.
CTKDBB	Item 1: The submitted sample was analyzed using a passive headspace technique and gas chromatography-mass spectrometry (GC-MS). Gasoline was identified in the sample. Item 2: The submitted sample was analyzed using a passive headspace technique and gas chromatography-mass spectrometry (GC-MS). A Medium Petroleum Distillate was identified. Examples of this type ignitable liquid include: some charcoal starters, some paint thinners and some dry cleaning solvents. Item 3: The submitted sample was analyzed using a passive headspace technique and gas chromatography-mass spectrometry (GC-MS). Ignitable liquids were not identified in the sample.
CW3TZN	Analysis of Item 1 revealed the presence of gasoline. Analysis of Item 2 revealed the presence of a medium petroleum distillate. Examples of this class are some charcoal starters, some paint thinners, and some dry cleaning solvents.
CW4AY2	Gasoline was present in Item 1. A medium petroleum distillate was present in Item 2, sources of the class of ignitable liquid includes some charcoal starters, some paint thinners and other proprietary formulations.. No ignitable liquid residues were detected in Item 3.

TABLE 4

WebCode	Conclusions
D3MF7D	Exhibit 1 contained gasoline, which is an ignitable liquid. Exhibit 2 contained a medium petroleum distillate (MPD), which is an ignitable liquid. Examples of MPDs include some mineral spirits, some charcoal starters, and some paint thinners. No ignitable liquids were identified in Exhibit 3.
DARB9L	I detected a gasoline residue in the fabric swatch, Item 1, collected from the bedroom curtains. I also detected a medium range (C9 – C12) petroleum distillate in the fabric swatch, Item 2, collected from the bed sheets. Examples of a medium range petroleum distillate can include: some charcoal starters, some paint thinners and some dry cleaning solvents. I did not detect any common ignitable liquid residues in the fabric swatch, Item 3, collected as a comparison sample.
DBXCVY	Sample #1 - a white cloth material that was collected from a set of curtains and secured in a double nylon evidence bag was "positive" for the presence of residues of an class 2 ignitable liquid, identified to be Gasoline. Sample #2 a white cloth materiel that was collected from a bed sheet, and secured in a double nylon evidence bag was "positive" for the presence of residues of an ignitable liquid, identified to be a Petroleum Distillate Class 3 - medium petroleum distillate.
DCQA47	Gasoline was identified in Item 1. A medium Petroleum distillate was identified in Item 2. Examples of medium petroleum distillates include, but are not limited to, charcoal starters, paint thinners, and dry cleaning solvents. No ignitable liquid was detected in Item 3.
DUUHNY	Gasoline was identified in Lab Item 1. A medium petroleum distillate was identified in Lab Item 2. No ignitable liquids were identified in Lab Item 3. Samples of recovered materials from this case have been preserved with the evidence. Analysis method: Carbon trap followed by Gas Chromatography/Mass Spectrometry
DV3WPD	Item 1.1 extract contained Gasoline. Gasoline contains all brands and grades of automotive gasoline including gasohol and E85. Item 1.2 extract contained a Medium Petroleum Distillate. Examples of Medium Petroleum Distillates may include but are not limited to some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 1.3 extract was used as a control substrate during analysis and contained no ignitable liquids. Negative results do not preclude the possibility that ignitable liquids were present at the investigation scene.
DW2XXQ	D) RESULTS AND INTERPRETATION OF EXAMINATION: 1. Laboratory item #1: Gasoline was identified. 2. Laboratory item #2: A medium petroleum distillate was identified. Examples of medium petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. 3. Laboratory item #3 (comparison sample for laboratory items #1 and #2): No ignitable liquids were identified. E) REMARKS: 1. The identification of an ignitable liquid residue on tested evidence does not necessarily lead to the conclusion that a fire was incendiary in nature. Further investigation may reveal a legitimate reason for the presence of ignitable liquid residues.
DWYN3Q	Analysis by Gas Chromatography/Mass Spectrometry of the cloth sample (Item 1A) reveals the presence of gasoline. Analysis by Gas Chromatography/Mass Spectrometry of the cloth sample (Item 1B) reveals the presence of a medium petroleum distillate (MPD). Examples of MPD's include: mineral spirits, some paint thinners, some charcoal starters, some torch fuels, some lamp oils, some dry cleaning solvents and some solvents for insecticides and polishes. Analysis by Gas Chromatography/Mass Spectrometry of the cloth comparision sample (Item 1C) fails to reveal the presence of any ignitable liquids. The procedure employed does not detect the presence of light volatiles such as certain alcohols and acetone.
DX7MZZ	Item 1.1 extract contained Gasoline. Gasoline contains all brands and grades of automotive gasoline including gasohol and E85. Item 1.2 extract contained a Medium Petroleum Distillate.Examples of Medium Petroleum Distillates may include but are not limited to some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 1.3 extract was used as a control substrate during analysis and contained no ignitable liquids. Negative results do not preclude the possibility that ignitable liquids were present at the investigation scene.
DXUV7X	Gasoline was present in Item 1. A medium petroleum distillate was present in Item 2. Products in this range include, but are not limited to, some types of charcoal starters, paint thinners, mineral spirits and lamp oils. No ignitable liquid residues were detected in the comparison sample, Item 3.

TABLE 4

WebCode	Conclusions
DYNGYN	Item 1 : presence of gasoline and a medium petroleum distillate. Item 2 : presence of a medium petroleum distillate. In both cases, the products are not compatible with the places where the samples were taken. We are in presence of accelerant products.
E66CEH	Item 1: Gasoline Identified. Item 2: Medium Petroleum Distillate Identified. Examples are some charcoal starters, some paint thinners and some dry cleaning solvents.
E67RHN	Item 1: Gasoline: Examples of a gasoline include all grades and brands of automobile gasoline, including gasohol and E85. Item 2: Medium Petroleum Distillate: Examples of a medium petroleum distillate include mineral spirits, some charcoal starters, some torch fuels, some lamp oils, some paint thinners, some solvents for insecticides and polishes, and some dry cleaning solvents. Item 3: Negative: The absence of detectable levels of ignitable liquid residues can be due to several factors, including destruction by the inherent nature of fire, evaporation prior to collection and analysis, fire suppression activities, improper packaging of sample, or lack of use of ignitable liquids.
EF9K3V	Items 1 through 3 were examined using passive headspace adsorption. The extracts recovered from Items 1 through 3 were examined by gas chromatography/mass spectrometry. The extract from item 1 was found to contain a volatile mixture which was identified as gasoline. The extract from item 2 was found to contain a volatile mixture which was identified as medium petroleum distillate (MPD). Examples of medium petroleum distillates include some charcoal lighters, some paint thinners and some organic solvents. No common ignitable liquid residues were detected in the extract from item 3. This does not preclude the possibility that an ignitable liquid may have been present at an earlier time.
EJPRHH	Exhibit 1 was analyzed and determined to contain gasoline. Exhibit 2 was analyzed and determined to contain a medium petroleum distillate. Examples of medium petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners, some dry cleaning solvents, and some mineral spirits. Exhibit 3 was analyzed and no common ignitable liquid residues were detected. This conclusion is based upon gas chromatography-mass spectrometry (GC-MS) analysis of concentrated headspace vapors from Exhibits 1-3.
EKLN7X	Item 1: An ignitable liquid was identified. The ignitable liquid is Gasoline. Item 2: An ignitable liquid was identified. The ignitable liquid is a dearomatized Medium Petroleum Distillate. Examples of such liquids include many odorless charcoal lighter fluids. The sample(s) were prepared using passive heated headspace and analyzed with a gas chromatograph-mass spectrometer.
ENXD6U	Gasoline was detected in item 1. A dearomatized medium petroleum distillate was detected in item 2. Medium petroleum distillates may include some charcoal starters, some paint thinners, and some dry cleaning solvents. Dearomatized products may be labeled as odorless. No ignitable liquid residue was detected in item 3.
F88Y2L	1. Gasoline was detected in Exhibit 1. Gasoline is an ignitable liquid and could act as a fire accelerant. 2. A medium petroleum distillate was detected in Exhibit 2, uses of which include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Medium petroleum distillates are ignitable liquids and could act as a fire accelerant. 3. No ignitable liquid, or its residue, was detected in Exhibit 3.
FEP6ZD	[No Conclusions Reported.]
FFMUKF	Item 1 Petrol was detected in the contents of this item. Item 2 A de-aromatised medium petroleum distillate was detected in the contents of this item. These substances can occur in a variety of products, including some specialty solvents, charcoal starters and cleaning and degreasing agents. Item 3 The contents of this item were examined for the presence of ignitable liquid residues, and none were found.
FGG4EC	Item 1: consistent with gasoline. Item 2: consistent with medium-weight dearomatized petroleum distillate
FHPW4P	Item 1: Instrumental analysis of this exhibit revealed the presence of evaporated gasoline. This result includes all brands and grades of automotive fuels. Item 2: Instrumental analysis of this exhibit revealed the presence of a medium petroleum distillate. Products in this range include, but are not limited to: mineral spirits, some paint thinners, some charcoal starters, "dry cleaning" solvents, some torch fuels, some solvents for insecticides and polishes, and some lamp oils. Item 3: Instrumental

TABLE 4

WebCode	Conclusions
	analysis of this exhibit did not reveal the presence of any ignitable liquid residue. This result does not eliminate the possibility that an ignitable liquid was used.
FL8DNB	On analysis, i found item 1 to bear traces of gasoline, subclass light. I also found that item 2 to bear traces of petroleum distillates (including De-Aromatized), subclass medium.
FMGH2Y	[No Conclusions Reported.]
FTRMXT	Gasoline was identified in Item #1. A petroleum distillate in the medium range was identified in Item #2, examples of which include some charcoal starters, some paint thinners, and some dry cleaning solvents. There were no ignitable liquids identified in Item #3.
FU6HXK	Gasoline residue was detected in Item 001-1. A medium petroleum distillate residue was detected in Item 001-2. Some examples of products that may include this class of compounds are paint thinners, charcoal starters, mineral spirits, light lubricating oils, shoe polish, and dry cleaning solvents. No common ignitable liquid residues were detected in Item 001-3.
FWDUDZ	Items 1, 2, and 3 were analyzed with a gas chromatograph-flame ionization detector (GC-FID) and a gas chromatograph-mass spectrometer (GC-MS) for the identification of ignitable liquids. Item 1 was found to contain gasoline. Item 2 was found to contain a medium petroleum distillate. Examples include: some charcoal starters, some paint thinners, mineral spirits. Item 3 was used as a control.
FYHM6D	Item 1 consisted of a piece of cream coloured cloth. Weathered petrol was detected in this item. Item 2 consisted of a piece of cream coloured cloth. A medium petroleum distillate (e.g. white spirit, low odour kerosene etc.) was detected in this item. Item 3 consisted of a piece of cream coloured cloth. No accelerants were detected in this item.
FZ4RLJ	On analysis, Item 1 was found to contain gasoline. Item 2 was found to contain medium petroleum distillates.
FZ8E2C	Petrol [gasoline] residues were detected on Item 1, described as cloth remnants from bedroom curtains. In my opinion, this shows that the fabric had come into contact with liquid petrol (gasoline). Petrol is a volatile liquid, the vapour of which can be readily ignited by an electric arc, a spark or a naked flame (such as from a lit match or lighter). Once ignited, petrol often produces intense energetic flames. Medium petroleum distillate (MPD) residues were detected on Item 2, described as cloth remnants from bedroom curtains. In my opinion, this shows that the fabric had come into contact with such a liquid. The residues were similar to an example of dearomatised white spirit [mineral spirits] previously tested at the laboratory. At ambient temperatures, the vapour from MPDs is not ignitable by a naked flame, without the liquid first being absorbed onto a material that can act as a wick. However, MPDs can be considered as effective fire accelerants when soaked into an absorbent material (e.g. fabric, carpet, cardboard).
G44EXL	1.Laboratory item #1: Gasoline was identified. 2.Laboratory item #2: A medium petroleum distillate was identified. Examples of medium petroleum distillates include, but are not limited to, some charcoal starters,some paint thinners, and some dry cleaning solvents. 3.Laboratory item #3 (Comparison Sample): No ignitable liquids were identified.
G7BYZ8	The above items were examined in accordance with [Laboratory] methods and procedures based upon ASTM International standard test methods and practices. The samples were extracted using passive headspace sampling and analyzed via gas chromatography - mass spectrometry. An extract generated from each item will be returned with the evidence (Items 1A, 2A and 3A). Item 1: An ignitable liquid residue was detected- gasoline. Gasoline may originate from any brand or grade of gasoline or gasohol. Item 2: An ignitable liquid residue was detected- a medium petroleum distillate. Medium petroleum distillates (MPDs) may originate from some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3: No ignitable liquid residues were detected.
GAEXAE	The following items were examined for the presence of ignitable liquids: Item 1.1 piece of cloth. Analysis Result: The piece of cloth of Item 1.1 contained gasoline. Item 1.2 piece of cloth. Analysis Result: The piece of cloth of Item 1.2 contained a medium petroleum distillate product. Examples of medium petroleum distillate products include some fuel injector cleaners and some charcoal starters. Item 1.3 piece of cloth. Analysis Result: No ignitable liquids were identified in the piece of cloth of Item 1.3. Analysis performed using passive headspace concentration with activated charcoal and gas

TABLE 4

WebCode	Conclusions
	chromatography/mass spectrometry.
GGDGAN	Item 1: Gasoline found. This includes any brand or octane, as well as any alcohol-blended gasoline. Item 2: A medium petroleum distillate found. Examples of medium petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3: No ignitable liquids found.
GH8K8K	Item n° 1 contains gasoline (with ethanol) and an unusual amount of isoparaffinic an n-alcane compounds. This is unusual for our country. Item n° 2 contains a MPD.
GJGFKG	Results, Opinions and Interpretations: The above items were extracted using passive adsorption/elution and analyzed using Gas Chromatograph/Mass Spectrometer(GC/MS). Item 1: Gasoline was identified. Item 2: A medium petroleum distillate residue was identified. Examples of this include but are not limited to some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3: No Ignitable Liquids were identified. This item is listed as a comparison/control sample. This comparison/control sample was analyzed and the results were used in evaluating possible matrix influences on other submitted sample(s).
GJZHFR	[No Conclusions Reported.]
GQJNH8	The analysis revealed the presence of two different ignitable liquids in item 1 and item 2. Gasoline was recovered from item 1. A medium petroleum distillate(de-aromatized)in the range C8 to C13 was recovered from item 2. Examples of this distillate include some paint thinners, some charcoal starters and some dry cleaning solvents. No ignitable liquids were detected on item 3 (reference sample).
GQZVJ2	Analysis indicates the presence of gasoline in sample 1. Analysis indicates the presence of a medium petroleum distillate in sample 2. No ignitable liquids were detected in sample 3.
GRRVJX	Residues of gasoline were identified on Item 1. Residues of a de-aromatized medium petroleum distillate (MPD) were identified on Item 2. Examples of a MPD include some charcoal starter fluids, some paint thinners, and some dry cleaning solvents. Gasoline and MPDs are considered ignitable liquids. No ignitable liquid residues were identified on Item 3.
GYX7PB	After comparison with the result of the comparison blank's analysis (item 3) : Gasoline was detected in item 1 ; A Medium Petroleum Distillate (De-Aromatized) was detected in item 2. This ignitable products class includes in particular some charcoal starters, some paint thinners and some dry cleaning solvents.
H2DCRX	Sample# 1 Analysis Results: Analysis indicates the presence of gasoline. Sample# 2 Analysis Results: Analysis indicates the presence of a medium petroleum distillate. Sample# 3 Analysis Results: No ignitable liquids were detected
H4NVPE	Item #001-001 ((1) piece of cloth) was extracted using dynamic headspace concentration. Gasoline was identified in item #001-001. Gasoline is a class of ignitable liquid as defined within the ASTM E1618 Ignitable Liquid Classification Scheme to include all brands and octane grades of gasoline, E85, and some specialty gasolines. Item #001-002 ((1) piece of cloth) was extracted using dynamic headspace concentration. A medium petroleum distillate (MPD) was identified in item #001-002. Examples of an MPD include some charcoal lighter fluids and paint thinners. Item #001-003 ((1) piece of cloth) was extracted using dynamic headspace concentration. No ignitable liquids were identified in item #001-003.
H6DRZ3	The ignitable liquids are not the same. In the first item, we find gasoline in the second we found a medium distillate petroleum.
H7V37L	CTS 19-536-a (Item 1) - Instrumental analysis of this exhibit revealed the presence of evaporated gasoline. This result includes all brands and grades of automotive fuels. CTS 19-536-b (Item 2) - Instrumental analysis of this exhibit revealed the presence of a medium petroleum distillate. Products in this range include, but are not limited to: mineral spirits, some paint thinners, some charcoal starters, "dry cleaning" solvents, some torch fuels, some solvents for insecticides and polishes, and some lamp oils. CTS 19-536-c (Item 3) - Instrumental analysis of this exhibit did not reveal the presence of any ignitable liquid residue. This result does not eliminate the possibility that an ignitable liquid was used.

TABLE 4

WebCode	Conclusions
HD8V4H	An ignitable liquid in the gasoline class was identified in item 1. An ignitable liquid in the medium petroleum distillate class was identified in item 2. Examples of products in the medium petroleum distillate class include some charcoal starters, some paint thinners and some dry cleaning solvents.
HL4Q43	The volatile contents of Items 1, 2 and 3 were extracted using a passive carbon adsorption/desorption technique and analyzed by gas chromatography - mass spectrometry (GC-MS). Gasoline was identified in Item 1 (Identification). A medium petroleum distillate was identified in Item 2, which includes but is not limited to some paint thinners, mineral spirits, and charcoal lighter fluids (Identification). There were no ignitable liquids detected in Item 3 (Not Detected).
HN8HVF	Due to the high level vapour detected with item 1 and item 2 any minor level fire accelerant, if present, may not have been detected. We do not normally report to ASTM guidelines. Item 1 a vapour similar to petrol/gasoline was detected with this item. Item 2 a vapour similar to white spirits, turpentine substitute or WD40 was detected with this item. Please note items are normally only classified as similar to petrol, diesel, paraffin and white spirits.
HPMMRR	Item # 1 - Cloth Remnant: A gasoline product was detected in Item #1.Examples of products include all forms of gasoline products. Item # 2 - Cloth Remnant: A medium de-aromatized petroleum distillate was recovered in Item #2. Examples of commercial products in this range include some charcoal starters,paint thinners and dry cleaning solvents. Item # 3 - Cloth Remnant: No Ignitable liquids were identified in Item #3. Conclusion and report above are based on ASTM E1618-14.
HUXGJN	Item 1. Gasoline was identified in the one gallon metal can containing the piece of white cloth. Item 2. A medium petroleum distillate was identified in the one gallon metal can containing the piece of white cloth. Examples of medium petroleum distillates are some paint thinners, charcoal starters, and mineral spirits. Item 3. No ignitable liquids were identified in the one gallon metal can containing the piece of white cloth. (Comparison sample)
HVNWYK	Item 1 found to contain residue of gasoline products. Item 2 found to contain residue of a naphthenic-paraffinic product of medium subclass.
HXCFZH	Item 1 is positive for gasoline. Item 2 is positive for petroleum distillate.
J3GQAN	Gasoline was detected in the bag containing a cloth remnant from bedroom curtains (Item 1). A de-aromatized medium petroleum distillate was detected in the bag containing a cloth remnant from a bed sheet (Item 2). No ignitable liquids were detected in the bag containing the substrate comparison (Item 3).
J4YJPZ	The volatile contents of Items 1, 2, and 3 were extracted using a passive carbon adsorption/elution technique and analyzed by gas chromatography - mass spectrometry (GC-MS). Gasoline was identified in Item 1 (Identification). A medium petroleum distillate was identified in Item 2 (Identification). Medium petroleum distillates include but are not limited to some paint thinners, mineral spirits, and charcoal lighter fluids. No ignitable liquid residues were detected in Item 3 (Not Detected).
JAJYVH	Item 1 was analyzed by gas chromatography/mass spectrometry and determined to contain a gasoline sample in which the concentration of the components has been altered by evaporation. Item 2 was analyzed by gas chromatography/mass spectrometry and determined to contain a medium Petroleum Distillate ASTM class ignitable liquid. Examples of this ASTM class are some charcoal started and paint thinners. Item 3 was analyzed by gas chromatography/mass spectrometry; however, ignitable liquids could not be detected.
JDMGAD	By means of physical study and chemical analysis: Ignitable liquid residue gasoline was detected in Item 1. Ignitable liquid residue within the class of medium combustible of petroleum distillates was detected on Item 2. For example: Paint thinners and charcoal starters. No inflammable or combustible substances were detected in Item 3.
JN2NRZ	Item 1: Gasoline was identify. Item 2: Medium Petroleum Distillates was found. Medium Petroleum Distillate includes:some paint thinners or charcoal lighters.
JVH73L	in both samples, we detect ignitable liquids
JW3PE3	Gas Chromatographic Mas Spectral (GC-MS) analysis of item 1 and Item 2 revealed the presence in

TABLE 4

WebCode	Conclusions
	high amounts of ignitable liquid residues in both items. Item1 : Gasoline. Item2 : Petroleum distillates (subclass medium). Item3 (blank) : no ignitable liquids were detected in the control bag. The results of research for flammable liquid must be replaced in the context of discovery and confronted with the observations done on the scene.
K3NEN3	Exhibit 1.01 (curtain) contained petrol. Exhibit 1.02 (bed-sheet) contained a medium petroleum distillate (MPD). Exhibit 1.03 (control blank fabric) contained no ignitable liquid residues. MPD is different from petrol and must have originated from a different source. Examples of where MPD may occur include: charcoal lighters, paint thinners, mineral spirits, polishes. Although an ILR type or class has been nominated, it must be noted that some commercial products incorporate similar liquids into their products - either within their specific formulation, or as "carrier" for the key compounds.
K6REH8	The following methodologies were used in the examination of this case: visual examination, odor assessment, GC-FID and GC-MS. Examination of item #1 revealed the presence of residual gasoline. Examination of item #2 revealed the presence of a medium petroleum distillate. Medium petroleum distillates include some charcoal starters and some paint thinners. Examination of item #3 failed to reveal the presence of ignitable liquids.
KCRWWJ	EVIDENCE ANALYZED: Item 1. A heat-sealed fire debris bag containing a heat-sealed fire debris bag containing a piece of cloth. Item 2. A heat-sealed fire debris bag containing a heat-sealed fire debris bag containing a piece of cloth. Item 3. A heat-sealed fire debris bag containing a heat-sealed fire debris bag containing a piece of cloth. (comparison). RESULTS OF ANALYSIS: Items 1, 2, 3 were extracted by passive adsorption/elution and analyzed by gas chromatography-mass spectrometry. Item 1. Partially evaporated gasoline was identified in the heat-sealed fire debris bag. Item 2. A medium petroleum distillate was identified in the heat-sealed fire debris bag. Examples of medium petroleum distillates are some paint thinners, charcoal starters, and mineral spirits. Item 3. No ignitable liquids were identified in the heat-sealed fire debris bag. (comparison)
KDZHFD	Item #1: The volatile contents were recovered using heated headspace recovery method and analyzed by gas chromatography, and were extracted by passive headspace adsorption using an activated charcoal strip recovery method and analyzed by gas chromatography/mass spectrometry. Gasoline was detected. Item #2: The volatile contents were recovered using heated headspace recovery method and analyzed by gas chromatography, and were extracted by passive headspace adsorption using an activated charcoal strip recovery method and analyzed by gas chromatography/mass spectrometry. A medium petroleum product (e.g. charcoal starters, paint thinners, mineral spirits, etc.) was detected. Item #3: The volatile contents were recovered using heated headspace recovery method and analyzed by gas chromatography, and were extracted by passive headspace adsorption using an activated charcoal strip recovery method and analyzed by gas chromatography/mass spectrometry. The item was analyzed as a comparison sample.
KJ4CP9	[No Conclusions Reported.]
KKL2QK	Item 1. Partially evaporated gasoline was identified in the heat-sealed fire debris bag containing a piece of white cloth. Item 2. A medium petroleum distillate was identified in the heat-sealed fire debris bag containing a piece of white cloth. Examples of medium petroleum distillates are some charcoal starters, paint thinners, and mineral spirits. Item 3. No ignitable liquids were identified in the in the heat-sealed fire debris bag containing a piece of white cloth. (Comparison)
KNJFDB	Item 1- Petrol was detected in the contents of this item. Item 2- A de-aromatised medium petroleum distillate was detected in the contents of this item. Medium petroleum distillates can be found in a variety of products including some charcoal starters, some specialty/industrial solvents and some cleaning products. Item 3- The contents of this item were examined for the presence of ignitable liquid residues, and none were found.
KTEABC	Gasoline was detected in Item #1. A medium petroleum distillate (MPD) was detected in Item #2. Examples of a MPD include paint thinners, charcoal lighter fluid, and specialty solvents. No ignitable liquid residue was detected in Item #3.
KU7PNM	Gasoline residue was detected within the bag containing the cloth remnant from the bedroom curtains (Item 1). A medium petroleum distillate residue was detected within the bag containing the cloth remnant from the bed sheets (Item 2). The distillate product appears to have been de-aromatized.

TABLE 4

WebCode	Conclusions
	Examples of medium petroleum products include, but are not limited to, the following: some charcoal starters, some paint thinners, and some dry cleaning solvents. No ignitable liquids were identified within the bag containing the cloth substrate (Item 3).
KU9V7N	Gasoline was identified in Item 1. A de-aromatized medium petroleum distillate was identified in Item 2. Examples of de-aromatized medium petroleum distillates include, but are not limited, to some odorless paint thinners and some odorless charcoal starters. No ignitable liquids were detected in Item 3. Items 1, 2, and 3 were examined visually and using gas chromatography/mass spectroscopy (GC/MS). Passive adsorption/elution extraction was performed on Items 1, 2, and 3. The activated charcoal strips used to collect volatile organic compounds with the adsorption/elution technique are contained in separate plastic vials, placed in separate, heat sealed fire debris bags, and each was repackaged in the original item.
KYF3CD	A residue of gasoline, an ignitable liquid, was identified in Item #1. An ignitable liquid residue consistent with a medium petroleum distillate was identified in Item #2. Examples of the medium petroleum distillate class of ignitable liquids include mineral spirits, some paint thinners, some charcoal lighter fuels, some torch fuels, and some solvents for insecticides and polishes. No ignitable liquid residues were detected in Item #3.
KYGTKG	Item 1 contained an ignitable liquid residue classified as gasoline. Item 2 contained an ignitable liquid residue classified as a medium-range petroleum distillate (MPD). Commercially available products that may contain an MPD include, but are not limited to, paint thinner, charcoal lighter fluid, and some lamp fuels. Residues of ignitable liquids were not detected in Item 3.
L2ND3P	Gasoline was identified in item 1. A petroleum distillate in the medium range was identified in item 2. Examples of petroleum distillates in the medium range include, but are not limited to, some charcoal starters, some paint thinners and some dry cleaning products. No ignitable liquid residues were identified in item 3.
L94ZU7	Item 1 contains gasoline. Item 2 contains a medium petroleum distillate.
LPTP22	Item 1 (Exhibit 1) Gasoline was detected. Item 2 (Exhibit 2) A medium petroleum distillate was detected. Examples of a medium petroleum distillate include some charcoal starters, some paint thinners and some dry cleaning solvents. Item 3 (Exhibit 3) No ignitable liquid was detected.
LQ49T6	Gas chromatographic analysis (GC-MS; heated headspace sampling (items 1-3) and passive headspace concentration (items 1-3) were performed and yielded the following results and conclusions: Item #1 - Gasoline was identified within item 1. Item #2 - A medium petroleum distillate was identified within item 2. Some examples of medium petroleum distillates include some paint thinners, some mineral spirits, some charcoal starters, and some dry cleaning solvents. Item #3 - An ignitable liquid residue was not identified within item 3.
LU6VG8	Petrol (Gasoline) was detected on the cloth remnant from the bedroom curtains (item 1). A medium petroleum distillate was detected on the cloth remnant from the bed sheets (item 2). No ignitable liquid residues were detected on the cloth substrate (item 3).
LWMEK6	"Item 1" was found to bear traces of Gasoline. "Item 2" was found to bear traces of Medium Petroleum Distillate. No ignitable liquid detected for "Item 3".
LZEQN3	Petrol was detected on the material in Item 1. A medium petroleum distillate, such as an automotive product, paint thinner or similar speciality solvent was detected on the material in Item 2. No flammable liquid was detected on the material in Item 3. This may mean that there was no flammable liquid originally present or that any flammable liquid had evaporated to below the detectable levels.
M2FZRY	Item 1 : Gasoline. Item 2 : Petroleum Distillates. Examples of petroleum distillates include some charcoal lighters and dry cleaning solvents.
MB8YF4	The following test methods were used in reaching the conclusions below: visual examination, passive headspace concentration, and gas chromatography-mass spectrometry (GC-MS). Exhibit 1 contained gasoline, which is an ignitable liquid. Exhibit 2 contained a medium petroleum distillate, which is an ignitable liquid. Examples of medium petroleum distillates include some mineral spirits and paint thinners. No ignitable liquids were detected in Exhibit 3. Preserved extracts from Exhibits 1, 2, and 3 were designated as Exhibits 1-K1, 2-K1, and 3-K1, respectively, and sealed within the corresponding

TABLE 4

WebCode	Conclusions
	exhibit.
MCFLZH	1. Laboratory item #1: Gasoline was identified. 2. Laboratory item #2: A medium petroleum distillate was identified. Examples of a medium petroleum distillate include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. 3. Laboratory item #3 (Comparison Sample for Laboratory items #1 and #2): No ignitable liquids were identified.
MD8J9P	Item 1 and item 2 were extracted by passive Solid phase microextraction (SPME) method with heating. The headspace above the sample adrorbed on the polymer-coated fused fiber was then analyzed by gas chromatography-mass spectrometry. A Gasoline, which is on ignitable liquid, was detected in item 1. The Analysis of item2, indicates the presence of a medium petroleum distillate (incliding De-Aromatized). We had also used other technique, the static or direct headspace, this method consists of extracting a quantity 1 ml of the vapor phase directly with a gas syringe, and analyzed by GC-MS.
MT3YEB	In Sample No. 1 we detected components of a blended product. One of the components is gasoline, the other is a medium petroleum distillate (MPD). It can be white spirit, charcoal starter, paint thinner or a similar product. Based on the ASTM E1618 standard this material falls under the Class No. 8. (others-miscellaneous, subclass light to medium). We found normal and branched alkanes in the range of C5-C13 (abundant isooctane in the direct headspace), aromatics (like toluene, xylols, ethyl toluenes, trimethyl benzenes, tetramethyl benzenes, indanes, naphtalenes). In the direct headspace result we also found in a small amount ethanol and methyl tert-pentyl ether. In Sample No. 2 we detected components of a petroleum distillate (Class No. 2.), subclass medium. We found normal, branched and cycloalkanes in the boiling range of C9-C12; the most abundant ones were the normal alkanes. We did not detect any aromatics nor oxygenates. This material can be white spirit, charcoal starter, paint thinner or a similar product.
MUFYLJ	Gasoline was identified in item 1. A medium petroleum distillate was identified in item 2. Medium petroleum distillates include, but are not limited to, some charcoal starters, paint thinners, and dry cleaning solvents. No common ignitable liquid was identified in item 3. Some conditions that could lead to this result are: A. No common ignitable liquid was present in the material analyzed. B. An ignitable liquid was present but below quantities required for a positive identification. C. An uncommon ignitable liquid was present.
MUZCWW	Item 1: Gasoline was identified. Item 2: A medium petroleum distillate was identified. Medium petroleum distillates are ignitable liquids and examples include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3: No ignitable liquid was identified.
MVPMPB	Item 1 : flammable liquid detected. Presence of a combination of aromatic compounds (toluene, C2-alkylbenzenes, C3-alkylbenzenes, indane, methylindanes, naphtalene and methylnaphtalenes), n-alkanes and isoalkanes (isooctane, etc.). The product is identified as a gasoline. Item 2 : flammable liquid detected. Presence of a gaussian distribution of spiking n-alkanes interspersed with less abundant isoalkanes and cycloalkanes eluting from C9 to C12. Aromatic compounds are not detected. The product is identified as a medium de-aromatized petroleum distillate (mineral-spirit, paint thinners, charcoal lighter, wood treatments, wood cleaning products ...). Item 3 : no relevant compound detected.
N2DMPN	Gasoline was identified in Lab Item 1. A medium petroleum distillate was identified in Lab Item 2. No ignitable liquids were identified in Lab Item 3.
NDQJBE	Item 1 contains gasoline. Item 2 contains a medium petroleum distillate. Examples of medium petroleum distillates include some charcoal starters, some paint thinners, and some dry cleaning solvents. No ignitable liquids were detected in item 3, said to be a comparison blank.
NDUTXQ	Items 1, 2, and 3 were analyzed with a gas chromatograph-flame ionization detector (GC-FID) and a gas chromatograph-mass spectrometer (GC-MS) for the identification of ignitable liquids. Item 1 was found to contain gasoline. Item 2 was found to contain a medium petroleum distillate. Examples include: some charcoal starters, some paint thinners, mineral spirits. Item 3 was used as a control.
NEJGJL	Gasoline found. This includes all brands and grades of domestic gasoline. Medium petroleum distillate found. Some common examples include some charcoal starters, some paint thinners, and

TABLE 4

WebCode	Conclusions
	some dry cleaning solvents
NHJPLB	Item 1: Item 1 was subjected to adsorption-elution extraction followed by gas chromatographic / mass spectrometric (GC/MS) analysis. GC/MS analysis shows the presence of gasoline. Examples of gasoline include (but are not limited to): all brands and grades of automotive gasoline, including gasohol and E85. Item 2: Item 2 was subjected to adsorption-elution extraction followed by gas chromatographic / mass spectrometric (GC/MS) analysis. GC/MS analysis shows the presence of a medium petroleum distillate. Examples of medium petroleum distillates include (but are not limited to): some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3: Item 3 was subjected to adsorption-elution extraction followed by gas chromatographic / mass spectrometric (GC/MS) analysis. GC/MS analysis shows no evidence of ignitable liquids. The presence of ignitable liquids in Item 1 and Item 2 does not necessarily lead to the conclusion that the fire was incendiary in nature. Further investigation may reveal a legitimate reason for the presence of ignitable liquids.
NHK39N	Exhibit 1 contained gasoline, which is an ignitable liquid. Exhibit 2 contained a medium petroleum distillate (MPD), which is an ignitable liquid. Examples of MPDs include some paint thinners, some mineral spirits, and some charcoal lighter fluids. No ignitable liquids were identified in Exhibit 3.
NHNPMG	Analysis by Gas Chromatography/Mass Spectrometry of the plastic bag containing cloth (Item 1A) reveals the presence of gasoline. Analysis by Gas Chromatography/Mass Spectrometry of the plastic bag containing cloth (Item 1B) reveals the presence of a medium petroleum distillate (MPD). Examples of MPD's include: mineral spirits, some paint thinners, some charcoal starters, some torch fuels, some lamp oils, some dry cleaning solvents and some solvents for insecticides and polishes. Analysis by Gas Chromatography/Mass Spectrometry of the plastic bag containing cloth (Item 1C) fails to reveal the presence of any ignitable liquids. The procedure employed does not detect the presence of light volatiles such as certain alcohols and acetone.
NJCMUG	1. Gasoline which is the subclass is light was identified on Item 1. (Cloth remnant from bedroom curtain). 2. A medium, petroleum distillate was identified on Item 2 (Cloth remnant from bed sheets). 3. No ignitable liquid was detected on Item 3 (Cloth substrate intended as a negative control).
NMCXPG	The fire debris samples were tested for the presence of ignitable liquids or residues. The laboratory analysis of the samples was performed in accordance with ASTM E1412-16 (Standard Practice for Separation of Ignitable Liquid Residues from Fire Debris Samples by Passive Headspace Concentration with Activated Charcoal) and ASTM E1618-14 (Standard Test Method for Ignitable Liquid Residues in Extracts from Fire Debris Samples by Gas Chromatography-Mass Spectrometry. Item 1: Fire Debris, Bedroom Curtains, Gasoline. Item 2: Fire Debris, Bed Sheet, C-9 to C-12 Petroleum Distillate. Item 3: Negative. The identification of an ignitable liquid from a fire scene alone does not necessarily prove that the fire was an incendiary act and negative results do not preclude the possibility that ignitable liquids were present at the fire scene
NWM7FJ	Sample Preparation: (1) Passive Headspace Extraction. Analytical Methods: (1) Gas Chromatography/Flame Ionization Detection, (2) Gas Chromatography/Mass Selective Detection. Item 1: Gasoline was identified. Item 2: A medium petroleum distillate product was identified. Examples of medium petroleum distillate products include mineral spirits, some paint thinners, and some charcoal starters. Item 3: No ignitable liquids were detected.
NXDEEL	A Gasoline was identified in Item1. A Medium Petrolium Distillates De-Aromatized in the range of C8-C13 was identified in Item2. Exemples of this distillate include some paint thinners, some charcoal starters and some dry cleaning solvents. No ignitable liquid was detected in the comparison blanck.
NYURJ4	Item 1: The results of the examination extremely strongly support that Item 1 contain ignitable liquid (Level +4), gasoline. Item 2: The results of the examination extremely strongly support that Item 2 contain ignitable liquid (Level +4), kerosene. Examples of Kerosene products: Charcoal Starter, Lamp Oil, Paint Thinner etc
P3NCJ6	Item 1 was determined to contain the following: Evaporated Gasoline, examples of which include all brands and grades of automotive gasoline, including gasohol. Item 2 was determined to contain the following: A Medium Petroleum Distillate Ignitable Liquid, examples of which include some charcoal starters, some paint thinners, and some dry cleaning solvents.
P6BMYX	Items 1 - 3 were submitted to the Chemical Criminalistics team on the 21st August 2019 with a

TABLE 4

WebCode	Conclusions
	request to perform ignitable liquid residue analysis. Samples relate to a Proficiency Test 19-536 from CTS. Items 1 - 3 were analysed for ignitable liquids according to standard ACS procedure. The procedure involves extraction and concentration of any volatile organic compounds and analysis of the sample using Gas Chromatography with Mass Spectrometry (GC-MS). This technique separates organic mixtures and provides information on the chemical structure of the individual components. Highly volatile organic compounds can also be separated and detected using the method employed. The identification of the residues of an ignitable liquid does not necessarily lead to the conclusion that a fire was deliberately lit as there may be legitimate reasons for the presence of an ignitable liquid. Interim Results: The following results were obtained: Item 1: Petrol identified. Item 2: Medium petroleum distillate identified #. Item 3: Nil ignitable liquid identified. # Profile appears similar to a weathered paint thinner.
PCETCF	Items 1, 2, and 3 were extracted using a passive adsorption-elution technique. The Item 1, 2, and 3 extracts were examined using Gas Chromatography-Mass Spectrometry (GCMS). The Item 1 extract contained gasoline. The Item 2 extract contained a medium petroleum distillate which can be found in, but is not limited to, some charcoal starter fluids, paint thinners and mineral spirits. No ignitable liquids were identified in the Item 3 extract.
PEGVXB	Analysis of Item 1 detected the presence of gasoline. The term gasoline includes all brands and grades of automotive gasoline. Analysis of Item 2 detected the presence of a medium petroleum distillate (examples: some paint thinners, some charcoal starters, some fuel additives, etc.). Analysis of Item 3 failed to detect the presence of an ignitable liquid.
PGHGQW	Analysis of Item 1 revealed the presence of Gasoline. Analysis of item 2 revealed the presence of Medium petroleum distillates (including De-Aromatized) form C8-C12.
PHFKND	Item 1 was analyzed by gas chromatography/mass spectrometry and determined to contain a gasoline sample in which the concentration of the components has been altered by evaporation. Item 2 was analyzed by gas chromatography/mass spectrometry and determined to contain a medium Petroleum Distillate ASTM class ignitable liquid. Examples of this ASTM class are some charcoal starters and some paint thinners. Item 3 was analyzed by gas chromatography/mass spectrometry; however, ignitable liquids could not be detected.
PJ9HWK	Item #1 - Cloth Remnant: A gasoline product was detected in Item #1 based on the ASTM 1618 classification scheme. Examples of products which contain these distillates include all forms of gasoline products. Item #2 - Cloth Remnant: A de-aromatized medium petroleum distillate was detected in Item #2 based on the ASTM 1618 classification scheme. Examples of products which contain these distillates include charcoal lighters, paint thinners and some dry cleaning solvents. Control Samples - Cloth Remnant: Items #3 was provided for background substrate and was negative for the presence of accelerants.
PMDMPD	1. Volatile residues from Exhibits 1 (cloth remnant from bedroom curtain), 2 (cloth remnant from bed sheets), and 3 (cloth substrate) were collected using simple heated headspace and passive headspace concentration techniques, and were analyzed using gas chromatography-mass spectrometry (GC-MS) for the presence of ignitable liquid residues. Exhibit 3 was analyzed as a negative control for Exhibits 1 and 2. 2. Gasoline was identified in the concentrated headspace vapors from Exhibit 1. 3. A medium petroleum distillate (MPD) was identified in the concentrated headspace vapors from Exhibit 2. Some example of commercial products in this ignitable liquid classification would include some charcoal starters, paint thinners, mineral spirits. 4. No ignitable liquid residues were identified in the concentrated headspace vapors from Exhibit 3.
PMRXJB	Analysis of Item 1 detected the presence of gasoline (includes all brands/grades of automotive gasoline). Analysis of Item 2 detected the presence of a medium petroleum distillate (examples: some paint thinners, some mineral spirits products, some charcoal starters, etc.). Analysis of Item 3 failed to detect the presence of an ignitable liquid.
PV4T37	1) In the sample received and labeled as item 1, it was detected the presence of one mixture which can be classified in the scheme proposed by the ASTM E 1618-14 Standard Methods as gasoline. 2)In the sample received and labeled as item 2, it was detected the presence of one mixture which can be classified in the scheme proposed by the ASTM E 1618-14 Standard Methods as Medium

TABLE 4

WebCode	Conclusions
	petroleum distillates (mineral espirit). 3)In the sample received and labeled as item 3, it were not detected any mixture which can be classified in the scheme proposed by the ASTM E1618-14 Standard Method. 4) The gasoline and medium petroleum distillates are a ignitables liquids. Ignitable liquid may start or accelerate a fire. The identification of an ignitable liquids residue in the item 1 and 2, does not necessarily lead to the conclusion that a fire was incendiary in nature. Further investigation may reveal a legitimate reason for the presence of ignitable liquid residues.
PVL4CC	Item #1: A mixture of a light petroleum distillate and gasoline was detected. Item #2: A medium petroleum distillate was detected. Examples of medium petroleum distillates include some paint thinners, some charcoal lighter fluids, and some specialty solvents. Item #3: No ignitable liquids were detected.
Q2737D	Item 1: Major class - Isoparaffinic Product, Subclass - Light. Item 2: Major class - Naphthenic Isoparaffinic Product, Subclass - Light
Q2BC9B	Item 1 was subjected to adsorption - elution extraction followed by gas chromatographic / mass spectrometric (GC/MS) analysis. GC/MS analysis shows the presence of gasoline. Examples of this class of ignitable liquid could include (but are not limited to): all brands and grades of automotive gasoline, including gasohol and E85. Item 2 was subjected to adsorption – elution extraction followed by gas chromatographic / mass spectrometric (GC/MS) analysis. GC/MS analysis shows the presence of a medium petroleum distillate ignitable liquid. Examples of this class of ignitable liquid could include (but are not limited to): some charcoal starters, some paint thinners and some dry cleaning solvents. Item 3 was subjected to adsorption – elution extraction followed by gas chromatographic / mass spectrometric (GC/MS) analysis. GC/MS analysis shows no evidence of ignitable liquids.
Q4CKBZ	ITEM M1 results match with gasoline as we have identified n-alkanes from C12 to C14, aromatic solvents (alkylbenzenes, indane), naphthalene and derivatives. ITEM M2 results match with isoparaffinic products and can be sorted into medium subclass (C8-C13).
Q98AR8	ITEM 1 contained gasoline ITEM 2 n alkanes from C9 to C12. The lighter could be mineral spirit, paint thinners, charcoal starter, torch fuel, lamp oil, dry cleaning, solvents, partially evapored
QED7DT	Item 1: Volatile components have been identified which originate from gasoline. Item 2: Volatile components have been identified which originate from a medium petroleum distillate (de-aromatized).
QEQGAC	1. Gasoline was detected in Exhibit 1. Gasoline is an ignitable liquid and could act as a fire accelerant. 2. A medium petroleum distillate was detected in Exhibit 2, uses of which include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Medium petroleum distillates are ignitable liquids and could act as a fire accelerant. 3. No ignitable liquid, or its residue, was detected in Exhibit 3.
QHVL47	Item 1 comprised a piece of white cloth enclosed in a sealed nylon evidence bag. Partially evaporated petrol (gasoline) residues were detected from the item. Item 2 comprised a piece of white cloth enclosed in a sealed nylon evidence bag. Medium petroleum distillate residues were detected from the item. Item 3 comprised a piece of white cloth enclosed in a sealed nylon evidence bag. No ignitable liquid residues were detected from the item.
QXA9F4	It was determined utilizing activated charcoal strip extraction and gas chromatography/mass spectrometry analysis that item 1 exhibited the presence of gasoline and item 2 exhibited the presence of a petroleum distillate in the medium range.
RGEBQD	Item 1: Analysis indicate the présence of a flammable liquid corresponding to gasoline partially altered by combustion or évaporation. This class include all brands and grades of gasoline, including gasohol. Item 2: Analysis indicate the présence of a flammable liquid corresponding to a medium range (C9-C12) pétroleum distillate. Example inclue but are not limited to, some charcoal starters, some paint thinners, cleaning solvants or odorless minéral spirits. Item 3: No ignitable liquids were detected.
RGGZVB	"Item 1" 1. The exhibit was analysed for the presence of ignitable liquid residues and petrol was detected. "Item 2" 2. The exhibit was analysed for the presence of ignitable liquid residues and medium petroleum distillate was detected. 3. According to literature, examples of medium petroleum distillates include mineral turpentines, some paint thinners, some charcoal starters and some dry

TABLE 4

WebCode	Conclusions
	cleaning solvents. "Item 3" 4. The exhibit was analysed for the presence of ignitable liquid residues and none was detected.
RGY3LJ	Gasoline was identified in item 1. A medium-range petroleum distillate was identified in item 2. Examples of medium-range petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. No ignitable liquids were identified in item 3 which was said to be a comparison sample.
RHRG4M	Analysis of item 1 revealed the presence of a petroleum product characteristic of gasoline. Analysis of item 2 revealed the presence of a petroleum distillate examples of which include some cigarette lighter fluids, paint thinners, charcoal starter fluids, camping fuels, diesel fuel, and some jet fuels. The product is further classified as a medium range product.
RJ6RL8	Gasoline was identified on item #1. A medium naphthenic-paraffinic product like some charcoal starters,some insecticide vehicles or some lamp oils was found on item 2. No ignitable liquids were detected on item #3.
RJM4HC	Item A1-1 was found to contain materials consistent with the composition of "GASOLINE" as described by ASTM specification E1618-14. The term "GASOLINE" includes all brands and grades of automotive gasoline including gasohol. Item A1-2 was found to contain materials consistent with the composition of "MEDIUM PETROLEUM DISTILLATE" as described by ASTM specifications E1618-14. The term "MEDIUM PETROLEUM DISTILLATE" includes products such as paint thinners, mineral spirits, dry cleaning solvents, and charcoal starters containing mineral spirits. Item A1-3 was "Control Sample" used for comparison purposes.
RKRFX8	Gasoline was detected in Item 1. A medium petroleum distillate was detected in Item 2. Medium petroleum distillates include, but are not limited to, some charcoal starters and lamp oils, mineral spirits, wood treatments and preservatives, dry cleaning solvents, fabric water repellents and protectors, automotive parts cleaners, spray lubricants, varnishes, kerosene substitutes, insecticide solvents and numerous other specialty application solvents and thinners. No ignitable liquids were detected in Item 3.
RRD42P	Gasoline was detected in sample 1. A medium petroleum distillate was detected in sample 2. No ignitable liquids were detected in sample 3.
RT8RFE	Item 1.1: Passive Headspace Concentration/Gas Chromatography-Mass Spectrometry disclosed the following: Gasoline. Item 1.2: Passive Headspace Concentration/Gas Chromatography-Mass Spectrometry disclosed the following: Medium (C8-C13) Petroleum Distillate. Examples of a Medium (C8-C13) Petroleum Distillate include some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 1.3: Passive Headspace Concentration/Gas Chromatography-Mass Spectrometry disclosed the following: No ignitable liquids/ignitable liquid residues identified. The identification of an ignitable liquid / ignitable liquid residue does not necessarily lead to the conclusion that a fire was incendiary in nature. The absence of an ignitable liquid / ignitable liquid residue does not preclude the possibility that ignitable liquids were present.
RTQT3G	Gasoline was identified in item 1. A petroleum distillate in the medium range was identified in item 2. Examples of petroleum distillates in the medium range include, but are not limited to, some charcoal starters, some paint thinners and some dry cleaning solvents. No ignitable liquid residues were identified in item 3.
RUJQAN	Gasoline was detected in item 1. A medium petroleum distillate was detected in item 2. Examples of medium petroleum distillates include some charcoal starters, some paint thinners, and some dry cleaning solvents. No ignitable liquids were detected in item 3. Note: The analysis includes testing for the presence of the following classes of ignitable liquids/residues: gasoline, and light, medium, and heavy subclasses of petroleum distillates, isoparaffinic products, naphthenic-paraffinic products, aromatic products, normal alkane products, oxygenated solvents (not including light volatile organic compounds, such as methanol, ethanol, isopropanol, and acetone), and other/miscellaneous (ASTM E1618).
RZAY29	RESULTS: Weathered gasoline was isolated on sample 1. An ignitable liquid, identified as a dearomatized medium petroleum product in the range of C10 to C13, was isolated on sample 2. Some examples of consumer products that may contain such a product are, but are not limited to,

TABLE 4

WebCode	Conclusions
	some spot cleaners, paint thinner, charcoal lighter fluid, and adhesive removers, which may, or may not be, labeled as "odorless". Volatile chemical residues were isolated on sample 3. The volatile chemical residues isolated on sample 3 does not compare favorably to current laboratory standards of ignitable liquids. CONCLUSIONS: Based upon the samples that were submitted and analyzed as described, the laboratory holds the following opinions; An ignitable liquid was isolated on sample 1. The ignitable liquid isolated on sample 1 has been identified as weathered gasoline. The term "weathered" implies that the original petroleum product, in this case gasoline, was exposed to heat and/or time, causing the more volatile components to be consumed. An ignitable liquid was isolated on sample 2. The ignitable liquid isolated on sample 2 has been identified as a dearomatized medium petroleum product in the range of C10 to C13. No ignitable liquids were isolated on sample 3.
T2ZMQH	Item # 1: Gasoline was identified in Item #1. Item # 2: A de-aromatized medium petroleum distillate was detected in item #2. Examples of products that contain MPDs are some charcoal lighters, some paint thinners, and some dry cleaning solvents. Item # 3: No ignitable liquid was detected in item # 3.
T3BMT4	Description of Evidence: Item #1- Cloth remnant from bedroom curtains sealed in a nylon evidence bag. Item #2- Cloth remnant from bed sheets sealed in a nylon evidence bag. Item #3- Cloth substrate intended as a comparison blank in a nylon evidence bag. Results/Opinions/Interpretations of Fire Debris Analysis: Item #1: The volatile contents were recovered using heated headspace recovery method and analyzed by gas chromatography , and were extracted by passive headspace adsorption using an activated charcoal strip recovery method and analyzed by gas chromatography/mass spectrometry. Gasoline was detected. Item #2: The volatile contents were recovered using heated headspace recovery method and analyzed by gas chromatography , and were extracted by passive headspace adsorption using an activated charcoal strip recovery method and analyzed by gas chromatography/mass spectrometry. A medium petroleum product (e.g. mineral spirits, paint thinners, charcoal starters , etc.) was detected. Item #3: The volatile contents were recovered using heated headspace recovery method and analyzed by gas chromatography , and were extracted by passive headspace adsorption using an activated charcoal strip recovery method and analyzed by gas chromatography/mass spectrometry. The item was analyzed as a comparison sample. Disposition of Evidence: The unanalyzed portion of the activated charcoal strip is being returned to the submitting agency along with the submitted evidence
T7XM7J	A gasoline residue was identified in the cloth remnant from bedroom curtains sealed in a nylon evidence bag. (Item 1-1). A medium petroleum distillate was identified in the cloth remnant from bed sheets sealed in a nylon evidence bag. (Item 1-2). Some examples of medium petroleum distillates would include some brands of charcoal lighter fluids, paint thinners, and mineral spirits. No ignitable liquids were detected in the cloth substrate intended as a comparison blank in a nylon evidence bag. (Item 1-3).
T9WGTM	Gasoline was detected in item 1. A medium petroleum distillate was detected in item 2. No ignitable liquids were detected in item 3. Examples of medium petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents.
TAGGAC	Volatile residues from Exhibits 1 (cloth remnant from bedroom curtains sealed in a nylon evidence bag), 2 (cloth remnant from bed sheets sealed in a nylon evidence bag), and 3 (cloth substrate intended as a comparison blank in a nylon evidence bag) were collected using direct and passive headspace concentration techniques and analyzed using gas chromatography/mass spectrometry for the presence of ignitable liquid residues. Gasoline was identified in the concentrated headspace vapors of Exhibit 1. A medium range petroleum distillate was identified in the concentrated headspace vapors of Exhibit 2. Ignitable liquids belonging to this class are commercially available as some charcoal starters, some paint thinners, and some dry cleaning solvents. No ignitable liquid residues were identified in the concentrated headspace vapors of Exhibits 3.
TFHQF6	My examination of the piece of off-white fabric, Item 001-1, detected gasoline residues. My examination of the piece of off-white fabric, Item 001-2, detected medium petroleum product residues. Some examples that may include this class of compounds are charcoal starters, paint thinners, mineral spirits, light lubricating oils, shoe polish, and dry cleaning solvents. My examination

TABLE 4

WebCode	Conclusions
	of the piece of off-white fabric, Item 001-3, did not detect any common ignitable liquid residues.
TGG2AL	Items 1, 2, and 3 were analyzed with a gas chromatograph-flame ionization detector (GC-FID) and a gas chromatograph-mass spectrometer (GC-MS) for the identification of ignitable liquids. Item 1 was found to contain gasoline. Item 2 was found to contain a medium petroleum distillate. Examples include: some charcoal starters, some paint thinners, some dry cleaning solvents, mineral spirits. Item 3 was used as a control.
TVR4P4	1) By means of physical study and chemical analysis Gasoline was detected on Item 1. 2) By means of physical study and chemical analysis a substance was detected on Item 2 within the classification of Medium Petroleum Distillates. This classification includes Mineral Spirits, Charcoal Starters Paint Thinners. 3) No flammable combustible substance was detected on Item 3.
TWPV2V	Item 1. hexane, 2,2,3,3-tetramethyl butane, toluene, xylene, 1-ethyl-2-methyl benzene and 1,2,4-trimethyl benzene detected. Identified as Gasoline. Item 2. nonane, decane, 4-methyl decane, undecane and dodecane detected. Identified as a medium petroleum distillate, possibly a specialty type product such as a fuel injector cleaner or paint thinner. Item 3. No flammable liquid detected.
TX4GDH	Gasoline was identified in Item 1-1. A medium petroleum distillate was identified in Item 1-2. Examples of a medium petroleum distillate would include some brands of charcoal lighter fluids, paint thinners, and mineral spirits. No ignitable liquids were identified in Item 1-3.
U7QEFQ	Item 1: An ignitable liquid classified as gasoline was detected. Item 2: An ignitable liquid classified as a medium petroleum distillate was detected. Examples of medium petroleum distillates include some charcoal starters, paint thinners, and dry cleaning solvents. Item 3: An ignitable liquid was not detected. For archival purposes, the unused carbon strips from items 1, 2, 3, and an empty bag were booked as item 4 under this DR.
U9DJ49	Item 1: gasoline was chromatographically detected. Examples of gasoline include all grades and brands of automobile gasoline, including gasohol. Item 2: medium petroleum distillate was chromatographically detected. Examples of a medium petroleum distillate include mineral spirits, some charcoal starters, some torch fuels, some lamp oils, some paint thinners, some solvents for insecticides and polishes, and some dry cleaning solvents. Item 3: negative: no ignitable liquids were chromatographically detected. The absence of detectable levels of ignitable liquid residues can be due to several factors, including destruction by the inherent nature of fire, evaporation prior to collection, and analysis, fire suppression activities, improper packaging of sample, or lack of use of ignitable liquids.
UE43H6	Items 1, 2 and 3 were analyzed by gas chromatography / mass spectrometry for the presence of ignitable liquids. Gasoline was detected in item 1. A medium range petroleum distillate was detected in item 2. Examples include some charcoal starters and some paint thinners. No ignitable liquids were detected in item 3.
UFC2K7	Item #1- Ignitable liquid residues containing gasoline. Item #2- Ignitable liquid residues in the range of a medium petroleum distillate. Item #3- No ignitable liquid residues were detected
UFGPCU	Gasoline was identified in ITEM 1. A medium petroleum distillate, like a mineral spirit, or charcoal lighter, or paint thinner was detected in ITEM 2. No ignitable liquid was detected in ITEM 3
UHMF28	Item 1 was found to contain gasoline. Item 2 was found to contain a medium-range petroleum distillate. Examples include some charcoal starters and some paint thinners. Item 3 was analyzed for comparison purposes only. No ignitable liquid residues were detected. The items were analyzed using a passive adsorption/elution recovery method using an activated carbon strip (C-strip), followed by gas chromatography/mass spectrometry.
UHMNGY	The following methodologies were used in the examination of this case: visual examination, odor assessment, GC-FID, and GC-MS. Examination of item #1 revealed the presence of residual gasoline. Examination of item #2 revealed the presence of a medium petroleum distillate. Medium petroleum distillates include some charcoal starters and some paint thinners. Examination of item #3 failed to reveal the presence of ignitable liquids.
UK4MGU	Analysis of Item 1 disclosed the presence of an ignitable liquid from the gasoline class. This class includes all brands and grades of gasoline. Analysis of Item 2 disclosed the presence of an ignitable

TABLE 4

WebCode	Conclusions
	liquid from the medium petroleum distillate class. Examples of this class include some charcoal starters, some paint thinners, and some dry cleaning solvents. Analysis conducted on Item 3 did not identify the presence of an ignitable liquid. Item 3 was submitted as a comparison sample.
UMWKNZ	Petrol vapour was detected on item 1. In my opinion these findings are as I would expect had petrol liquid been in contact with this item. A medium petroleum distillate vapour was detected on item 2. In my opinion these findings are as I would expect had a de-aromatised medium petroleum distillate liquid been in contact with this item. No flammable liquid residues were detected on item 3.
UNBLQ8	1. Volatile residues from Exhibits 1 (cloth remnant from bedroom curtains), 2 (cloth remnant from bed sheets), and 3 (cloth substrate intended as a comparison blank) were collected using simple headspace techniques and passive headspace concentration techniques and analyzed using gas chromatography-mass spectrometry (GC-MS) for the presence of ignitable liquid residues. 2. Gasoline was identified in the concentrated headspace vapors of Exhibit 1. 3. A medium petroleum distillate was identified in the concentrated headspace vapors of Exhibit 2. Ignitable liquids belonging to this class are commercially available as some paint thinners, some charcoal starters, and some dry cleaning solvents. 4. No ignitable liquid residues were identified in Exhibit 3.
UNTFRH	Gasoline, which is an ignitable liquid was identified in Exhibit 1. Exhibit 2 contained a medium petroleum distillate (MPD), which is an ignitable liquid. Examples of MPDs include some mineral spirits, some paint thinners, some charcoal starters and some lamp oils. No ignitable liquids were identified in Exhibit 3.
UP324J	Instrumental analysis of exhibit #1 revealed gasoline. Instrumental analysis of exhibit #2 revealed medium petroleum distillate. No ignitable liquid was detected in exhibit #3.
UQXNH9	Item 1 contain, ignitable liquid of Gasoline. Item 2 contain, ignitable liquid of medium petroleum distillate (C9 – C13).
UTYUVT	Item 1 contained gasoline. Item 2 contained a medium petroleum distillate, in the range of C8-C12. Item 3 was examined as a comparison sample for Item 1 and Item 2.
UZGX73	In Item 1, Gasoline was detected. In Item 2 De-Aromatized Medium Petroleum Distillate (MPD) was detected. Liquids belonging to the group de-aromatized MPD are available on the market and sold as, e.g. charcoal starters and paint thinners.
UZXAP8	Gasoline was detected in item 1. Gasoline is an ignitable liquid. A medium de-aromatized petroleum distillate, was detected in item 2 which is ignitable. Item 2 is consisted of hydrocarbons in the range of C8-C12. Possible products which may contain item 2 are:some charcoal starters,some paint thinners , some dry cleaning solvents,e.t.c. No ignitable liquid was identified in item 3.
VCRQD9	Item 1 was analyzed by gas chromatography/mass spectrometry and determined to contain a gasoline sample in which the concentration of the components has been altered by evaporation. Item 2 was analyzed by gas chromatography/mass spectrometry and determined to contain a medium Petroleum Distillate ASTM class ignitable liquid. Examples of this ASTM class are some charcoal starters and some paint thinners.
VDKNLF	An ignitable liquid residue classified as gasoline was identified in item 1. An ignitable liquid residue classified as a medium petroleum distillate was identified in item 2. Examples of products that may contain a medium petroleum distillate include, but are not limited to: some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3 was submitted as a comparison sample; there were no ignitable liquid residues identified.
VMCKHV	The following test methods were utilized in reaching the conclusions reported below: visual examination, passive headspace concentration (PHC), and gas chromatography-mass spectrometry (GC-MS). Gasoline was identified in Exhibit 1. Gasoline is an ignitable liquid. A medium petroleum distillate (MPD) was identified in Exhibit 2. Examples of MPDs include some charcoal starters, some lamp oils and some paint thinners. MPDs are ignitable liquids. Exhibit 3 was analyzed for the presence of ignitable liquids with negative results.
VQP47P	Item 1 was found to contain compounds classified as gasoline according to ASTM E1618-14. Item 2 was found to contain compounds classified as medium Petroleum destillates de-aromatized product according to ASTM E1618-14. Item 3 No ignitable liquid residues were identified (Not Identified).

TABLE 4

WebCode	Conclusions
VZYRJ3	Gasoline was identified in Item 1. An ignitable liquid classified as a medium petroleum distillate was detected in Item 2. Some examples of medium petroleum distillates are some charcoal starters, paint thinners, mineral spirits, and lamp oils. No ignitable liquid was detected in Item 3.
W3JKUQ	Residues of gasoline were identified on Item 1. Residues of a de-aromatized medium petroleum distillate (MPD) were identified on Item 2. Examples of a MPD include some charcoal starter fluids, some paint thinners, and some dry cleaning solvents. Gasoline and MPDs are considered ignitable liquids. No ignitable liquid residues were identified on Item 3.
W6UYH6	Item 1 was analyzed for the presence of ignitable liquid residues. Gasoline was detected. Item 2 was analyzed for the presence of ignitable liquid residues. A Medium Petroleum Distillate was detected. Examples include some charcoal starters, some paint thinners, and some fuel additives. Item 3 was a control sample submitted for comparison.
W8GHJ3	An ignitable liquid classified as gasoline was identified in Item 1. An ignitable liquid classified as a medium petroleum distillate was identified in Item 2. Examples of products that contain medium petroleum distillates include, but are not limited to, some charcoal lighter fluids. No recognizable ignitable liquid was identified in item 3.
W8UACJ	RESULTS, CONCLUSIONS & INTERPRETATIONS: Lab Item 1: Cloth remnant from bedroom curtains. Analysis confirmed gasoline. Lab Item 2: Cloth remnant from bed sheets. Analysis confirmed a medium petroleum distillate. Lab Item 3: Cloth substrate intended as comparison blank. Submitted as a control sample and tested for substrate background products and interferences.
W8WYH3	Gasoline, an ignitable liquid, was identified in Item 1. A Medium Petroleum Distillate, an ignitable liquid, was identified in Item 2. Examples of medium petroleum distillates include some charcoal starters, paint thinners and dry-cleaning solvents. No ignitable liquid residues were identified in Item 3.
W94XFB	[No Conclusions Reported.]
W97KU4	Gasoline was identified in Item#1. A Medium Petroleum Distillate was identified in Item#2, such as charcoal lighter fluid and paint thinner. No ignitable liquid was identified in Item#3(Comparison Blank)
W9PXQ9	Items 1 through 3 were extracted using a passive adsorption-elution technique. The Item 1 through 3 extracts were examined using Gas Chromatography-Mass Spectrometry (GC-MS). The Item 1 extract contained gasoline. The Item 2 extract contained a medium petroleum distillate which can be found in, but is not limited to, some mineral spirits, paint thinners, and charcoal starter fluids. No ignitable liquids were identified in the Item 3 extract.
W9TU9E	Gasoline was identified in Item #1. A petroleum distillate in the medium range was identified in Item #2, examples of which include some charcoal starters, some paint thinners, and some dry cleaning solvents. There were no ignitable liquids identified in Item #3.
WAZBXW	Item 1 was analyzed and determined to contain gasoline. Item 2 was analyzed and determined to contain a medium petroleum distillate. Examples of medium petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3 was analyzed, and no common ignitable liquid residue was identified. This conclusion is based upon gas chromatography-mass spectrometry (GC-MS) analysis of concentrated headspace vapors from each sample.
WLTW4R	Item 1: The submitted sample was analyzed using a passive headspace technique and gas chromatography-mass spectrometry (GC-MS). Gasoline was identified in the sample. Item 2: The submitted sample was analyzed using a passive headspace technique and gas chromatography-mass spectrometry (GC-MS). A Medium Petroleum Distillate was identified. Examples of this type ignitable liquid include: some charcoal starters, some paint thinners and some dry cleaning solvents.
WPCUTH	Item 1: GC-MS analysis identified residues of petrol (gasoline). Item 2: GC-MS analysis identified residues of a medium petroleum distillate (MPD). Item 3: GC-MS analysis failed to identify any ignitable liquid residues.
WQMMTC	Sample nr 1 was detected isoparaffinic and aromatic hydrocarbons which are classified as iginitable liquids. Commercial products are e.g. gasoline and other special fuels. Sample can originate from

TABLE 4

WebCode	Conclusions
	one or mixture of two products. Sample nr 2 was detected alifatic hyrdocarbons which are originated from petroleum distillate type products. Commercial products are e.g. mineral spirits, paint thinners, lamp oils and solvents. Sample nr 3 was not detected any ignitable liquids.
WRGMKV	The cloth remnant from bedroom curtains sealed in a nylon evidence bag (Item 1) was found to contain an ignitable liquid consistent with gasoline. The cloth remnant from bed sheets sealed in a nylon evidence bag (Item 2) was found to contain an ignitable liquid consistent with medium petroleum distillates (De-aromatized) .
WT9HAP	Item 1 contained a medium aromatic product which include but not limited to automotive parts cleaners, specialty solvents, insecticide vehicles and fuel additives. Item 2 contained a medium petroleum distillate which include but not limited to charcoal starters, paint thinners and lamp oils.
WZRN7W	Item 1: A light to medium range (C5 – C12) miscellaneous ignitable liquid residue was identified in Item 1. Examples include some specialty products and some blended products. Item 2: A de-aromatized medium petroleum distillate ignitable liquid residue was identified in Item 2. Examples include some charcoal starters, some paint thinners, and some dry cleaning solvents.
WZXNED	Items 1 and 2 were examined for the presence of hydrocarbon fire accelerants e.g. petrol, white spirit, paraffin oil, diesel oil. Item 1 was found to contain partly evaporated petrol vapour. Item was found to contain partly evaporated medium petroleum distillate vapour. Examples of medium petroleum distillates include white spirit, some paint thinners and some charcoal starters.
X7RHG4	A Miscellaneous ignitable liquid residue was detected in the ACS sample extract (item 1-1-1-1-1) from the cloth remnant from bedroom curtains (item 1-1-1-1). Examples of Miscellaneous ignitable liquids are some blended products, some enamel reducers, and some specialty products. A Medium Petroleum Distillate ignitable liquid residue was detected in the ACS sample extract (item 1-2-1-1-1) from the cloth remnant from bed sheets (item 1-2-1-1). Examples of Medium Petroleum Distillate ignitable liquids are some charcoal starters, some paint thinners and some dry cleaning solvents. No ignitable liquid residues were detected on the ACS sample extract (item 1-3-1-1-1) from cloth substrate intended as a comparison blank (item 1-3-1-1).
XERZX2	Item #1: The volatile contents were recovered using heated headspace recovery method and analyzed by gas chromatography, and were extracted by passive headspace adsorption using an activated charcoal strip recovery method and analyzed by gas chromatography/mass spectrometry. Gasoline was identified in item #1. Item #2: The volatile contents were recovered using heated headspace recovery method and analyzed by gas chromatography, and were extracted by passive headspace adsorption using an activated charcoal strip recovery method and analyzed by gas chromatography/mass spectrometry. A medium petroleum distillate (MPD) was identified in item #2. Examples of an MPD include some types of charcoal starters, paint thinners, and mineral spirits. Item #3: The volatile contents were recovered using heated headspace recovery method and analyzed by gas chromatography, and were extracted by passive headspace adsorption using an activated charcoal strip recovery method and analyzed by gas chromatography/mass spectrometry. The item was analyzed as a comparison sample. No ignitable liquid residues were detected.
XRW3D4	Gasoline was detected in Item 1. A medium petroleum distillate was detected in Item 2. Medium petroleum distillates include, but are not limited to, some charcoal starters and lamp oils, mineral spirits, wood treatments and preservatives, dry cleaning solvents, fabric water repellents and protectors, automotive parts cleaners, spray lubricants, varnishes, kerosene substitutes, insecticide solvents and numerous other specialty application solvents and thinners. No ignitable liquids were detected in Item 3.
XTURX6	Items 1, 2, and 3 were extracted using a passive adsorption-elution technique. The Item 1, 2, and 3 extracts were examined using Gas Chromatography-Mass Spectrometry (GC-MS). The Item 1 extract contained gasoline. The Item 2 extract contained a medium petroleum distillate which can be found in, but is not limited to, some mineral spirits, paint thinners, and charcoal starter fluids. No ignitable liquids were identified in the Item 3 extract.
XW4N68	Gasoline was identified in Specimen #001. A Medium Petroleum Distillate was identified in Specimen #002. Examples of Medium Petroleum Distillates include paint thinners, some charcoal starters, and cleaning solvents. No ignitable liquids were detected in Specimen #003. Specimens #001-#003

TABLE 4

WebCode	Conclusions
	were extracted by Passive Concentration Headspace extraction with activated charcoal and analyzed by Gas Chromatography/Mass Spectrometry. Disclaimer: The absence of an ignitable liquid does not rule out the possibility that ignitable liquids were present at the fire scene. Ignitable liquids are volatile compounds that may have evaporated, been totally consumed in a fire, environmentally altered or removed, or otherwise indistinguishable from background material.
XZRYLZ	Item 1: gasoline and a medium isoparaffinic product. Item 2: medium petroleum distillate. Item 3: no ignitable liquids were identified in the control sample.
YA8VRV	Item 1 was determined to contain the following: Evaporated Gasoline, examples of which include all brands and grades of automotive gasoline, including gasohol. Item 2 was determined to contain the following: A Medium Petroleum Distillate Ignitable Liquid, examples of which include some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3 was submitted as a comparison sample: No ignitable liquids were identified.
YB96V9	Item 1: Gasoline + Petroleum distillates (De-aromatized), Medium. Item 2: Petroleum distillates (De-aromatized), Medium
YBQ2GG	Item 1 contained series of alkylbenzenes with Indane. Castle group and Gang of four can be easily identified in TIC. Therefore item 1 can be identified as Gasoline. According to the chromatogram of Item 2, predominant n-alkanes pattern was present with a good Gaussian distribution between C8 - C13. Additionally branched alkanes can be identified with lower abundance compare to the n-alkanes. So item 2 can be read as medium petroleum distillate.
YE82DT	Gasoline identified in item 1. Medium petroleum distillate identified in item 2. No ignitable liquid identified in item 3.
YFYGQ6	Passive Headspace Concentration/Gas Chromatography-Mass Spectrometry disclosed the following: Item 1.1: Gasoline. Item 1.2: Medium (C8-C13) petroleum distillate. Examples of a medium (C8-C13) petroleum distillate include some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 1.3: No ignitable liquids/ignitable liquid residues identified. The identification of an ignitable liquid / ignitable liquid residue does not necessarily lead to the conclusion that a fire was incendiary in nature. The absence of an ignitable liquid / ignitable liquid residue does not preclude the possibility that ignitable liquids were present.
YNDRBX	GC/MS analysis of Item 001 disclosed the presence of gasoline. GC/MS analysis of Item 002 disclosed the presence of a medium petroleum distillate. Examples of a medium petroleum distillate include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents.
YVT8NM	Item 1A was analyzed utilizing Gas Chromatography/Mass Spectrometry (GC/MS). This item contains an ignitable liquid in the gasoline class. The results apply only to the sample(s) received. The evidence, including the sample used in analysis, will be returned to the submitting agency. Item 1B was analyzed utilizing Gas Chromatography/Mass Spectrometry (GC/MS). This item contains an ignitable liquid in the medium petroleum distillate class. Examples of products in the medium petroleum distillate class include some charcoal starters, paint thinners, lamp oils, torch fuels and dry cleaning solvents. The results apply only to the sample(s) received. The evidence, including the sample used in analysis, will be returned to the submitting agency. Item 1C was analyzed utilizing Gas Chromatography/Mass Spectrometry (GC/MS). No ignitable liquids were identified. It should be noted that ignitable liquids may evaporate or can be totally consumed during a fire. A negative finding of ignitable liquids does not preclude its presence during a fire. The results apply only to the sample(s) received. The evidence, including the sample used in analysis, will be returned to the submitting agency.
Z37HBM	Examination and analysis performed on item 1 revealed the presence of gasoline (an ignitable liquid). Examination and analysis performed on item 2 revealed the presence of paint thinner (an ignitable liquid). Examination and analysis performed on item 3 did not reveal the presence of ignitable liquids.
ZBHG6X	1)In the sample received and labeled as item 1, it was detected the presence of one mixture which can be classified in the scheme proposed by the ASTM E 1618-14 Standard Methods as Gasoline. 2)In the sample received and labeled as item 2, it was detected the presence of one mixture which can be classified in the scheme proposed by the ASTM E 1618-14 Standard Methods as Medium Petroleum

TABLE 4

WebCode	Conclusions
	Distillates (varsol and/or mineral spirit). 3) In the sample received and labeled as item 3, it were not detected any mixture which can be classified in the scheme proposed by the ASTM E 1618-14 Standard Method. 4) The Gasoline and Varsol or Mineral Spirit are ignitable liquids. Ignitable liquid may start or accelerate a fire.
ZCW2VM	Item 1 (LIMS #1-1): Item 1 contains gasoline. Gasoline is an ignitable liquid. Item 2 (LIMS #1-2): An ignitable liquid classified as a medium petroleum distillate was detected. Examples of medium petroleum distillates include charcoal starters, paint thinners, or mineral spirits. Item 3 (LIMS #1-3): An ignitable liquid was not detected. Carbon strips, for archive, produced from items 1 - 3, and from a bag blank were booked as item 4.
ZFFXJD	The samples were analyzed by gas chromatography - mass spectrometry for presence of ignitable liquids. Item 1: Instrumental analysis detected high levels of isoalkanes and alkylbenzenes with ethanol, so the ignitable liquid is identifed as gasoline. Item 2:Instrumental analysis detected the presence of normal alkanes, isoalkanes and cycloalkanes. The ignitable liquid is identifed as medium, dearomatized petroleum distillates products. Item 3: No ignitable liquids were detected in the sample.
ZJCKC2	Item 1: Gasoline was detected. Examples: All brands and grades of automotive gasolines and gasohol. Item 2: A medium petroleum distillate was detected. Examples: Mineral spirits, some paint thinners, some charcoal starters, some torch fuels, some solvents for insecticides and polish, and some lamp oils.
ZJHU98	In the item 1 is detected hexane, benzene, heptane, toluene, octane, benzene ethyl, xylenes, nonane, C3-alkylbenzenes, decane, indane, C4-alkylbenzenes, undecane, dodecane and tridecane. This is the typical comnposition of gasoline consists of a combination of alkanes (C4-C12) and aromatics (alkylbenzenes, indanes, naphthalenes). In the item 2 is detected heptane, cyclohexane dimethyl, octane, cyclohexane trimethyl, octane methyl, octane dimethyl, nonane, cyclohexane propyl, nonane methyl, decane, cyclohexane butyl, decane methyl undecane and cyclohexane pentyl, undecane methyl and dodecane. MPD consist of alkanes (normal-, branched-, and cycloalkanes), predominantly in the range of C8-C13, as most abundant components.
ZK6HK8	Item 1: The samples extract were classified as gasoline. Item 2: The samples extract were classified as medium petroleum distillates. Item 3: No ignitable liquids were detected.
ZN9744	Item #1 - The presence of a Gasoline was detected in this sample. Item #2 - A medium petroleum product (e.g. charcoal starters, paint thinners, copier toners, etc.) was detected. Item #3 - No ignitable liquids were detected.
ZT29AN	Item 1: The submitted sample was analyzed using a passive headspace technique and gas chromatography-mass spectrometry (GC-MS). Gasoline was identified in the sample. The evidence will be returned to the submitting agency. Item 2: The submitted sample was analyzed using a passive headspace technique and gas chromatography-mass spectrometry (GC-MS). A Medium Petroleum Distillate was identified. Examples of this type ignitable liquid include: some charcoal starters, some paint thinners and some dry cleaning solvents. The evidence will be returned to the submitting agency. Item 3: The submitted sample was analyzed using a passive headspace technique and gas chromatography-mass spectrometry (GC-MS). Ignitable liquids were not identified in the sample. Date of receipt of evidence: 7/30/2019. Date(s) of performance of the laboratory activity: 8/8/19, 8/9/19, 8/13/19, 8/14/19. The evidence will be returned to the submitting agency.
ZUFRW8	item 1 contained n-alkanes(C9 ~ C12)abundant than aromatics but n-alkanes(C7 ~ C8) less abundant than aromatics), cycloalkanes(less abundant than aromatics), aromatics(abundant) and polynuclear aromatic compound type(present). item2 contained n-alkanes((C7 ~ C12), abundant, gaussian distribution), cycloalkanes(less abundant than alkanes), aromatics(absent) and polynuclear aromatic compound type(absent).
ZUUCKB	Items 1 through 3 were examined using passive headspace adsorption. The extracts recovered from Items 1 through 3 were examined by gas chromatography/mass spectrometry. Item 1 was found to contain a volatile mixture identified as gasoline. Item 2 was found to contain a volatile mixture identified as a medium petroleum distillate (MPD). Examples of such mixtures include some charcoal lighters, some paint thinners and some organic solvents. No common ignitable liquid residues were detected in the comparison sample (Item 3).

TABLE 4

WebCode	Conclusions
ZVLCJ8	Item 1 contains gasoline and medium petroleum distillates. Item 2 contains medium de-aromatized petroleum distillates.
ZWNDX8	EXHIBIT # AGENCY # DESCRIPTION 1 1 One piece of cloth. Examination reveals the presence of an ignitable liquid residue in the Gasoline Class. Refer to the attached Ignitable Liquid Classification System. 2 2 One piece of cloth. Examination reveals the presence of an ignitable liquid residue in the Medium Range of the Petroleum Distillates Class. Refer to the attached Ignitable Liquid Classification System. 3 3 One piece of cloth (comparison sample). No ignitable liquid residue as defined by the attached Ignitable Liquid Classification System was detected. Exhibits 1 through 3 were analyzed using passive adsorption on an activated charcoal disk. The disk was extracted with a solvent and the recovered volatile material was analyzed by gas chromatography / mass spectrometry. [Participant submitted data in a format that could not be reproduced in this report.]
ZXWYFZ	Item 1: The Item contains components identifiable as gasoline. Item 2: The Item contains components identifiable as a de-aromatized medium petroleum distillate, characteristic of some charcoal starters, some paint thinners, etc. Item 3: The Item failed to reveal the presence of an identifiable ignitable liquid
ZYPXN8	Item 1: Analysis identified the presence of Gasoline. Gasoline includes all makes, grades and gasohol. Item 2: Analysis identified the presence of a Medium Petroleum Distillate. Some examples of Medium Petroleum Distillates include: Premium Quality Charcoal Starter, some charcoal starters, some paint thinners, and some dry cleaning solvents.

Additional Comments

TABLE 5

WebCode	Additional Comments
2GHFTT	Gasoline was deteced in Item 1. A medium petroleum distillate was detected in Item 2. No ignitable liquid residues were detected in Item 3. The presence of an ignitable liquid residue in Items 1 and 2 does not in and of itself indicate an incendiary fire. The results in Item 3 do not eliminate the possibility that an ignitable liquid was present at the incident in question.
2UU2GX	Ignitable liquid classification is based on ASTM E1618 Standard Test Method for Ignitable Liquid Residues in Extracts from Fire Debris Samples by Gas Chromatography-Mass Spectrometry and/or the laboratory's internal policy and procedures.
2VNMDA	In addition to the conclusion wording, my report would also state the method of testing (passive heated headspace, GCMS) and include a note that the remaining portion of charcoal strip with extracted vapors from the items was returned with the evidence. Item 3 (comparison sample) was also tested, with negative results as expected.
497EPA	No ignitable liquids were detected in Item 1-3 ("Test No. 19-536 Item 3, comparison").
4HDY7K	Examples of a medium petroleum distillate may include but are not limited to some charcoal starters, some paint thinners and some dry cleaning solvents.
4LUG82	Item 1A is CTS item 1. Item 1B is CTS item 2. Item 1C is CTS item 3
6L7W2N	NOTE: Although an ignitable liquid was identified in the submitted sample(s), further investigation may reveal a legitimate reason for the presence of an ignitable liquid. NOTE: A finding of no ignitable liquids identified does not preclude the possibility that ignitable liquids were present in the sample(s). Explanations for a finding of no ignitable liquids may be, but are not limited to: evaporation of the volatile compounds, complete consumption in a fire, environmental alteration, masked by background material, not present in the sample, or a limitation of the reference material available to this laboratory. NOTE: An activated charcoal strip was used to collect a sample from each item submitted for analysis. These charcoal strips are preserved in the laboratory for 5 years for potential additional analysis. Charcoal strips associated with death investigations will be preserved indefinitely.
7MXXBP	The above items were examined in accordance with laboratory methods and procedures based upon ASTM International standard test methods and practices. The samples were extracted using passive headspace sampling and analyzed via gas chromatography - mass spectrometry. An extract generated from each item will be returned with the evidence (1A, 2A, and 3A).
9ZXG6L	The identification of an ignitable liquid in an item does not necessarily indicate that a fire has been deliberately set. Gasoline is an ignitable liquid that is typically used as a fuel for vehicles and small engines. Medium petroleum distillates are ignitable liquids that may be found in commercial products such as Varsol, barbecue starter fluids, paint thinners and some products marketed as Kerosene. This report contains interpretations and opinions based on scientific data. To obtain information about sample availability for retesting or additional testing, clarification, or a copy of the documentation underlying this report, please contact the writer of this report. Technical assistance has been provided in the examination and analysis of the items discussed in this report, in accordance with the policies and procedures of [Laboratory]. The following instrumental analytical technique was used to analyze the items: Gas Chromatography – Mass Spectrometry (GC-MS)
A8PPVQ	Please be advised, Item #2 was a medium dearomatized distillate.
B6J6HV	Item 1, Item 2 and Item 3 were examined visually and using gas chromatography/mass spectroscopy (GC/MS). Headspace of Item 1, Item 2, and Item 3 was directly injected into the gas chromatograph/mass spectrometer (GC/MS). After the headspace analysis, passive adsorption/elution extraction was performed on Item 1, Item 2 and Item 3. The compounds were then analyzed with a gas chromatograph/mass spectrometer. The activated charcoal strips used to collect volatile organic compounds with an adsorption/elution technique are contained in separate plastic vials, placed in separate heat-sealed fire debris bags and were repackaged inside the original item.

TABLE 5

WebCode	Additional Comments
BCYTBC	Examples of a medium petroleum distillate may include but are not limited to some charcoal starters, some paint thinners, and some dry cleaning solvents.
BNFBBV	item 1A is agency item 1. item 1B is agency item 2. item 1C is agency item 3
BRTFJP	Item 2: Medium petroleum products in this range include, but are not limited to, some types of kerosene, some charcoal starters, some lamp oils, and some polishes.
BWQXX6	Items 1, 2, and 3 were examined visually and using gas chromatography/mass spectroscopy (GC/MS). Passive adsorption/elution extraction was performed on Items 1, 2, and 3. The activated charcoal strips used to collect volatile organic compounds with an adsorption/elution technique are contained in separate plastic vials, placed in separate, heat-sealed fire debris bags, and each was repackaged inside the original item.
DCQA47	Normally I format the results in a non-paragraph format. The note on the data sheet stated that my normal formatting may not display correctly in the summary report. I altered the reporting in order for it to make more sense in paragraph form.
DYNGYN	Item 1 : according to European gasoline, the presence of a MPD product is not legitimate as part of the gasoline. Several hypotheses may be proposed. First it might be a possible additivation of the gasoline. MPD can be present in some US gasoline. It could also be a contamination which source cannot be determined here.
E67RHN	During the process of analysis, there was a delay in steps that normally occur all in the same day, or within hours of each other. After placing samples in quality checked cans with activated charcoal strips and heating for ~2 hours, the c-strips are normally removed from the cans and placed in vials with solvents (soon after the requisite 1-2 hours of allowing cans to cool for safe handling). However, in this case, the c-strips remained in their sealed cans (cooling) for ~3 days due to unforeseen events occurring at lab at same time. The sealed cans were kept in a contamination free, secured room during this time and were transferred to their vials with solvent under contamination free conditions. The chromatographic data did show a much weathered/degraded pattern in samples 1 & 3; sample 2 quality was still good. Made notes regarding these issues (on laboratory forms) and performed analysis based solely on results and regarding samples as if they had been gauze swabs submitted for evidence analysis.
EKLN7X	Finally a straight forward test
FYHM6D	This laboratory does not use the ASTM classification scheme.
FZ4RLJ	No ignitable liquids detected in Item 3.
FZ8E2C	Ignitable liquid residues were not detected on the control sample of cloth, Item 3.
G44EXL	Qualifier: 1. The identification of an ignitable liquid residue on tested evidence does not necessarily lead to the conclusion that a fire was incendiary in nature. Further investigation may reveal a legitimate reason for the presence of ignitable liquid residues.
HL4Q43	Explanation of Terms: The following descriptions are meant to provide context to the types of opinions reached in fire debris / ignitable liquid examinations. Identification: The sample contained an ignitable liquid or residues of an ignitable liquid. Not Identified: Compounds were detected that may be present in some ignitable liquids. Possible factors that prevented identification of an ignitable liquid may include one or more of the following: The detected compounds may originate from substrate materials and/or pyrolysis of substrate materials, Other compounds in the sample impeded data interpretation, An unexplained absence of components and/or differences in ratios of compound types compared to a reference liquid was observed, No comparable sample in the reference collection was found. Not Detected: The data did not indicate the presence of an ignitable liquid.
HUXGJN	The entire body of the the report reads as follows: EVIDENCE ANALYZED: Item 1 (Agency Item IL). External packaging. Item 1.1 (Agency Item IL). One gallon metal can containing the piece of white cloth. Item 1.2 (Agency Item IL). One gallon metal can containing the piece of white cloth. Item 1.3

TABLE 5

WebCode	Additional Comments
	(Agency Item IL). One gallon metal can containing the piece of white cloth. RESULTS OF ANALYSIS: Item 1.1 was extracted by passive adsorption/elution and analyzed by gas chromatography-mass spectrometry. Item 1.2 was extracted by passive adsorption/elution and analyzed by gas chromatography-mass spectrometry. Item 1.3 was extracted by passive adsorption/elution and analyzed by gas chromatography-mass spectrometry. Item 1. Not analyzed. Item 1.1. Gasoline was identified in the one gallon metal can containing the piece of white cloth. Item 1.2. A medium petroleum distillate was identified in the one gallon metal can containing the piece of white cloth. Examples of medium petroleum distillates are some paint thinners, charcoal starters, and mineral spirits. Item 1.3. No ignitable liquids were identified in the one gallon metal can containing the piece of white cloth. (Comparison sample) The above interpretation does not represent the totality of the analyst's observations. Further questions and/or discussion is encouraged.
JW3PE3	we're using ASTM E-1618 scheme for the interpretation of the analysis results. For Item 1 : The territory that my laboratory covers does not see abundance of n-alkanes in the gasoline
KDZHFD	Disposition of Evidence: The unanalyzed portion of the activated charcoal strips are being returned to the submitting agency along with the submitted evidence.
LQ49T6	The identification of an ignitable liquid residue does not necessarily lead to the conclusion that a fire was incendiary in nature. The absence of an ignitable liquid residue does not preclude the possibility that ignitable liquids were present.
MCFLZH	1. The identification of an ignitable liquid residue on tested evidence does not necessarily lead to the conclusion that a fire was incendiary in nature. Further investigation may reveal a legitimate reason for the presence of ignitable liquid residues. 2. Laboratory items #1-#3 will be forwarded to the Property Clerk Division for storage.
MD8J9P	The presence of ignitable liquids in Item 1 and Item 2 does not necessarily lead to the conclusion that fire was incendiary in nature. Further investigation may reveal a legitimate reason for the presence of ignitable liquids.
MUZCWW	The identification of an ignitable liquid in an item does not necessarily lead to the conclusion that a fire was deliberately set. Methods of Analysis: Item(s) have been extracted/concentrated using activated charcoal strip or diluted, and have been analyzed by gas chromatography-mass spectrometry (GC-MS), which is a standard instrumental technique.
N2DMPN	Negative results do not preclude the possibility that ignitable liquids were present at the fire scene. Samples of removed materials from this case have been preserved with the evidence. Analysis method: Carbon trap followed by Gas Chromatography/Mass Spectrometery.
NHNPMG	Item 1A listed above is CTS item 1. Item 1B listed above is CTS item 2. Item 1C listed above is CTS item 3
NJCMUG	The ignitable liquid were detected in Item 1 and Item 2 by using Gas chromatography–mass spectrometry(GC-MS).
NYURJ4	Additional analysis: Adsorption with Activated Charcoal Strip at 100 degrees over night - desorption with dichloromethane => GC/MS
P3NCJ6	Item 1 is an Evaporated Gasoline. Item 2 is a De-aromatized Medium Petroleum Distillate Ignitable Liquid.
P6BMYX	Item 2 may be a de-aromtaised medium petroleum distillate.
PEGVXB	A very small peak of ethanol was detected in Item 3; QNS to report.
PGHGQW	Item 3:The submitted material was analyzed using a passive headspace technique and GC MS no ignitable liquid was identified.
PJ9HWK	Conclusions and caveats below are based on ASTM 1618-14. The identification of an ignitable liquid residue in a fire scene does not necessarily lead to the conclusion that a fire was incendiary in nature.

TABLE 5

WebCode	Additional Comments
	Further investigation may reveal a legitimate reason for the presence of ignitable liquids. The absence of an ignitable liquid residue does not preclude the possibility that ignitable liquids were present at the fire scene. Ignitable liquids are volatile compounds that may have evaporated, been totally consumed in a fire, environmentally altered or removed, or otherwise indistinguishable from background materials. Chain of Custody records and details of the GC-MS analysis may be provided upon request.
Q2BC9B	The presence of ignitable liquids in Item 1 and Item 2 does not necessarily lead to the conclusion that the fire was incendiary in nature. Further investigation may reveal a legitimate reason for the presence of ignitable liquids.
RJM4HC	Item 2 appears to be dearomatized.
RTQT3G	Items 1, 2 and 3 were extracted using a passive adsorption-elution technique and were analyzed using gas chromatography/mass spectrometry (GC/MS). Both the analyzed and unanalyzed portions of the charcoal strips will be returned to the submitting agency along with the original evidence. Identification of an ignitable liquid residue in a fire scene does not necessarily lead to the conclusion that a fire was incendiary in nature. Further investigation may reveal a legitimate reason for the presence of ignitable liquid residue. It is noted that many ignitable liquids are very volatile and may be lost through evaporation, totally consumed during a fire, environmentally altered, or indistinguishable from background materials. A negative result does not preclude the possibility that ignitable liquids were present in the sample.
T9WGTM	Failure to identify an ignitable liquid in any samples of fire debris should not be interpreted to mean that an ignitable liquid could not have been present. It means only that none could be recovered from the debris and or detected during analysis. These opinions are based upon my knowledge, skills, experience, training, education and personal observations as well as facts and data perceived by or made known to me, which facts and data are of the type reasonably relied upon by experts in my particular field in forming opinions or inferences.
UFC2K7	Medium petroleum products in this range include, but are not limited to, some types of kerosene, some charcoal starters, some lamp oils and some polishes.
UK4MGU	Items 1.1, 2.1, 3.1, and BL1 have been retained in a packet labeled "Packet FDB1". This packet is being returned to the submitting agency.
UP324J	We have an information sheet similar to Table I "Ignitable Liquid Classification Scheme" in ASTM E1618, which we send along with the report. [Attachment not provided by participant].
VMCKHV	Nylon bags are not great containers, Exhibit 1 leaked before I had a chance to open the inner bag.
W9PXQ9	For Step 1 of this proficiency report, there was space to report the results of Item 1 and Item 2, but not Item 3. Item 3 was indicated as "a comparison sample". Comparison samples are analyzed and reported on in the exact same way as questioned samples. It is also not uncommon for an ignitable liquid to be present in a comparison, as they are collected in the same region of a fire from an area that is suspected to NOT contain and ignitable liquid, which can not be known until analysis. Therefore, the proficiency report should include an area to report the results of the analysis of Item 3. Additionally, Item 3 is listed as a "comparison blank", but does not indicate which substrate it is a comparison for (the Item 1 bedroom curtain or the Item 2 bed sheets). A comparison sample (if submitted) is typically submitted for each substrate.
WPCUTH	Item 1: Petrol (gasoline) is a highly refined petroleum product and is an ignitable liquid. Item 2: MPDs are products of crude oil distillation and are ignitable liquids. Examples of MPDs include, but are not limited to: charcoal starters, paint thinners, dry cleaning solvents, white spirits, cleaning solutions, and mineral turpentine products. Item 3: This sample was used for comparison purposes.
WQMMTC	In the sample 1 there were more isoparaffinic hydrocarbons than in [Country] gasoline. [Country] gasoline includes oxygenated additives, which were not detected from the sample. Similar products were not in labroatorie's own database.

TABLE 5

WebCode	Additional Comments
WT9HAP	Due to ion 142 not present on my chromatographs my conservative conclusion was aromatic and not gasoline.
YE82DT	Gasoline is an ignitable liquid that is most commonly used as a fuel in vehicles and small engines. Medium petroleum distillates are ignitable liquids that may be found in commercial products such as mineral spirits, Barbecue Starter Fluid, Varsol, some products marketed as kerosene, and some paint thinners.
ZBHG6X	The Medium Petroleum Distillates detected on the sample received and labeled as item 2, has a carbon number range between C8 – C12.
ZFFXJD	Note: The identification of an ignitable residue from the fire debris from a fire scene does not necessarily lead to the conclusion that a fire was incendiary in nature. Further investigation may releval a legitimate reason for the presence liquid residues. Our laboratory is situated in other Continent, and we don't have so standard samples, of which chromatograms could be fit exactly with those chromatograms which resulted the testing of Item 1 and Item 2, so we can not identify the commercial product we have found in the mentioned items.
ZWNDX8	A copy of the Ignitable Liquids Classification System is attached to all reports.
ZYPXN8	Item 2 - Dearomatized

-End of Report-
(Appendix may follow)

Collaborative Testing Services ~ Forensic Testing Program

Test No. 19-536: Ignitable Liquid Identification

DATA MUST BE SUBMITTED BY **Sept. 30, 2019, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A WebCode: G6H2TZ

The Accreditation Release section can be accessed by using the "Continue to Final Submission" button above. This information can be entered at any time prior to submitting to CTS.

Scenario:

Police are investigating a suspected attempted arson of a nearby residence. It appears that someone tried to start a fire in a bedroom. Investigators collected cloth remnants belonging to a set of curtains and a bed sheet that were located near the attempted ignition site that appeared to contain spilled liquid. The samples were immediately sealed within nylon evidence bags. The police are requesting that you identify any ignitable liquid(s) that may be present on the cloth samples.

For laboratories that do not process evidence in nylon bags, please utilize the following method to transfer the items to a sampling container consistent with fire debris submission in your laboratory:
Cut open 3 sides of the inner and outer bags containing the sample and place both opened bags and its contents into your laboratory container. Do not separate the sample (cloth, wood, cardboard, etc.) from the bags when transferring to the laboratory container.
CTS will not reproduce Interpretation Scales, Scale of Conclusions or Terminology Keys in the final report, please do not submit with the participant's data sheet.

Items Submitted (Sample Pack IL):

Item 1: Cloth remnant from bedroom curtains sealed in a nylon evidence bag.
Item 2: Cloth remnant from bed sheets sealed in a nylon evidence bag.
Item 3: Cloth substrate intended as a comparison blank in a nylon evidence bag.

1.) Using the ASTM E 1618-14 Ignitable Liquid Classification Scheme, indicate the class for any ignitable liquid(s) detected in the submitted items.

With the exception of the gasoline class, there are three subclasses for each major class based on n-alkane range: **Light** (C4-C9), **Medium** (C8-C13) and **Heavy** (C9-C20+). When the carbon range does not fit clearly into one of the previous categories (e.g."light to medium", "medium to heavy"), report the carbon number range. Typical chromatograms for some of the classes/subclasses may be found in the published ASTM standard.

Item 1

Class	*Subclass*

Item 2

Class	*Subclass*

2.) Ignitable Liquid Recovery Techniques

Adsorption Headspace

a) Method

- ☐ Passive
- ☐ Dynamic

b) Adsorption Temperature

- ☐ Room Temperature
- ☐ Heated (Temperature: ____ °C)

c) Adsorption Duration ____

d) Adsorbent:

- ☐ Carbon/Charcoal
- ☐ Other: ____

e) Desorption:

- ☐ Solvent: ____
- ☐ Thermal

Other Recovery Techniques:

Specify: ____

3.) Ignitable Liquid Identification Techniques

☐ GC ☐ GC/MS ☐ Other (specify): ____

Please note: *Any additional formatting applied in the free form spaces below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

4.) What would be the wording of the Conclusions in your report?

5.) Additional Comments

RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and/or A2LA. Please select one of the following statements to ensure your data is handled appropriately.

○ This participant's data is intended for submission to ASCLD/LAB, ANAB, and/or A2LA. (Accreditation Release section below must be completed.)
○ This participant's data is **not** intended for submission to ASCLD/LAB, ANAB, and/or A2LA.

Have the laboratory's designated individual complete the following steps
only if your laboratory is accredited in this testing/calibration discipline
by one or more of the following Accreditation Bodies.

Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory

ANAB Certificate No.
(Include ASCLD/LAB Certificate here)

A2LA Certificate No.

Step 2: Complete the Laboratory Identifying Information in its entirety

Authorized Contact Person and Title

Laboratory Name

Location (City/State)