



## Flammables Analysis Test No. 14-536 Summary Report

This proficiency test was sent to 355 participants. Each sample set consisted of two Nylon bags containing an unburned piece of black olefin carpet to which an ignitable liquid had been added (Items 1 and 2), and an unused, sealed Nylon bag with a clean piece of the same type of carpet to use as a control (Item 3). Data were returned from 307 participants (86.5% response rate) and are compiled into the following tables:

	<u>Page</u>
Manufacturer's Information	<u>2</u>
<u>Summary Comments</u>	<u>3</u>
Table 1: Flammable Identification	<u>4</u>
Table 2: Flammable Recovery Techniques	<u>21</u>
Table 3: Identification Techniques	<u>31</u>
Table 4: Conclusions	<u>34</u>
Table 5: Additional Comments	<u>61</u>
<u>Appendix: Data Sheet</u>	<u>66</u>

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.

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.

## **Manufacturer's Information**

Each sample set consisted of three items: two Nylon bags that each contained an unburned piece of black olefin carpet to which an ignitable liquid had been added, and one Nylon bag containing a sample of the same type of carpet which was provided to participants as a negative, control sample. The Nylon bags used in this test were produced by the Grand River Products company. Participants were requested to identify and indicate the class for any ignitable liquid(s) detected in the submitted items.

#### SAMPLE PREPARATION-

The unburned olefin carpet in both the Item 1 and Item 2 bags contained a product labeled as Crown 1-K Kerosene. The Kerosene was purchased from a local home improvement store in June 2014.

ITEM 3 (COMPARISON BLANK): The unburned olefin carpet was prepared by cutting the carpet into 2" x 2" squares. One unburned carpet square was dropped into a previously opened 5" x 10" nylon bag with no flammable substances in the immediate production area. The bag was immediately double heat-sealed across the top using a Midwest Pacific Impulse Heat Sealer, Model MP-12, which produces a 1/8" wide band. 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. The item was stored separately from other items until the complete sample sets were put together.

ITEMS 1 and 2 (PREPARATION): The unburned olefin carpet was prepared by cutting the carpet into 2" x 2" squares. The two items were prepared and packaged separately. For Items 1 and 2, one unburned olefin carpet square was held and 25  $\mu$ l of the designated flammable substance was pipetted on top of the carpet two times for a total of 50  $\mu$ l. The carpet square was then dropped into a previously opened 5" x 10" nylon bag. The bag was immediately double heat-sealed across the top using a Midwest Pacific Impulse Heat Sealer, Model MP-12, which produces a 1/8" wide band. 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.

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 Items 1 and 2 as a Medium-to-Heavy or a Heavy Petroleum Distillate (ranges listed from C9-C15). These liquids were 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 extraction and identification of ignitable substances on unburned pieces of black olefin carpet substrate packaged in Nylon bags. Participants were provided with three items: two Nylon bags that each contained an unburned piece of black olefin carpet spiked with the same ignitable liquid and one Nylon bag that contained an unburned piece of olefin carpet that was not spiked which was provided as a comparison blank. The olefin carpet in the Item 1 and Item 2 bags contained a product labeled as Crown 1-K Kerosene. [Refer to the Manufacturer's Information for preparation details.]

Of the 307 participants who reported classification results for Item 1 and Item 2, 285 (92.8%) classified the ignitable liquids as belonging to the Petroleum Distillate classification. The liquid found in both items was classified as "Others-Miscellaneous" by 14 (4.6%) participants. Of the remaining eight participants, one reported Gasoline for both items, one reported Normal Alkane Products for both items, and six participants reported the presence of both a Petroleum Distillate and one additional classification for both items.

Release Date of Summary Report: 11-November-2014

## **Flammable Identification**

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

	TABLE 1a - It	tem 1
WebCode	Item 1: Class	SubClass
22KCWY	Petroleum Distillates (including De-Aromatized)	Medium
286DCC	Petroleum Distillates (including De-Aromatized)	Medium-heavy (C8-C15)
29X79V	Petroleum Distillates (including De-Aromatized)	Medium product range
2AULKR	Petroleum Distillates (including De-Aromatized)	Medium (C8 - C13)
2DBAWC	Others - Miscellaneous	Medium Aromatic/PD C9-C14 Medium to Heavy
2DWKVK	Petroleum Distillates (including De-Aromatized)	Heavy
2E6XE8	Petroleum Distillates (including De-Aromatized)	Неачу
2EQJV4	Petroleum Distillates (including De-Aromatized)	Medium to heavy C8-C15
2GAH8D	Petroleum Distillates (including De-Aromatized)	Medium
2L6C6E	Petroleum Distillates (including De-Aromatized)	C8 - C15
2NUJMQ	Petroleum Distillates (including De-Aromatized)	Неачу
2QXD49	Petroleum Distillates (including De-Aromatized)	Medium
2X2F99	Petroleum Distillates (including De-Aromatized)	Неачу
2Z8JGY	Petroleum Distillates (including De-Aromatized)	Medium (C9-C14)
32JVH2	Petroleum Distillates (including De-Aromatized)	Medium
3AVU96	Petroleum Distillates (including De-Aromatized)	Неачу
3DRKCV	Petroleum Distillates (including De-Aromatized)	Medium to Heavy Range (C9 to C14)
3EJLA8	Petroleum Distillates (including De-Aromatized)	Medium
3GUEE8	Petroleum Distillates (including De-Aromatized)	Medium
3JVNZA	Petroleum Distillates (including De-Aromatized)	Medium to heavy
3KPBX7	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate (MPD)
3P6R7B	Petroleum Distillates (including De-Aromatized)	Неачу
3TJMM9	Petroleum Distillates (including De-Aromatized)	MEDIUM
3UCB8P	Others - Miscellaneous	Aromatic Product with Medium Petroleum Distillate
3XFZYX	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C9-C14)
3YRN9C	Petroleum Distillates (including De-Aromatized)	Heavy
42U4XE	Petroleum Distillates (including De-Aromatized)	Medium to heavy (the carbon number range is from C7 to C15)
43NU4T	Petroleum Distillates (including De-Aromatized)	Medium to heavy
48X6ZU	Petroleum Distillates (including De-Aromatized)	Неачу
4CR4BJ	Petroleum Distillates (including De-Aromatized)	Неачу
4D84TM	Others - Miscellaneous	Medium to Heavy
4DNKMF	Petroleum Distillates (including De-Aromatized)	Medium
4HMPPZ	Petroleum Distillates (including De-Aromatized)	Medium to heavy

WebCode	Item 1: Class	SubClass
4JV4RZ	Petroleum Distillates (including De-Aromatized)	Heavy (ASTM class 4)
4LFZCJ	Others - Miscellaneous	Medium
4LYU2Z	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C9-C14)
4MAJF7	Petroleum Distillates (including De-Aromatized)	Medium
4NP36A	Petroleum Distillates (including De-Aromatized)	MPD
4P3CFV	Petroleum Distillates (including De-Aromatized)	Medium to heavy
4PJQKK	Petroleum Distillates (including De-Aromatized)	Medium to heavy
4R4JWM	Petroleum Distillates (including De-Aromatized)	C9 - C14
4TDPTN	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C8-C14)
4ZXMLH	Petroleum Distillates (including De-Aromatized)	Medium (C9 - C12)
63G6C2	Petroleum Distillates (including De-Aromatized)	Неачу
68ELT2	Aromatic Products	Medium
	Petroleum Distillates (including De-Aromatized)	Неачу
6C6VYT	Petroleum Distillates (including De-Aromatized)	Medium
6DHPGE	Petroleum Distillates (including De-Aromatized)	Heavy (C8-C16)
6DZE3F	Petroleum Distillates (including De-Aromatized)	Неачу
6G2HV3	Petroleum Distillates (including De-Aromatized)	Medium
6JUBUR	Petroleum Distillates (including De-Aromatized)	C8 - C15
6K4BWE	Petroleum Distillates (including De-Aromatized)	Medium-Heavy C9-C15
6KLCR4	Petroleum Distillates (including De-Aromatized)	Medium (C7-C14)
6LRWF4	Petroleum Distillates (including De-Aromatized)	Неачу
6R6NVW	Petroleum Distillates (including De-Aromatized)	Неачу
6RHAGR	Petroleum Distillates (including De-Aromatized)	+HPD
6RK298	Petroleum Distillates (including De-Aromatized)	Неачу
6YLBJ7	Petroleum Distillates (including De-Aromatized)	Medium
6ZWBFZ	Aromatic Products	Medium
	Petroleum Distillates (including De-Aromatized)	Неачу
76MZKB	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
7B76BQ	Petroleum Distillates (including De-Aromatized)	Medium-Heavy (C9-C14)
7JKYLL	Petroleum Distillates (including De-Aromatized)	C8-C14
7TRQVG	Petroleum Distillates (including De-Aromatized)	Medium
7VDH3D	Petroleum Distillates (including De-Aromatized)	Неачу
7VHWDT	Gasoline	
82ZPXQ	Petroleum Distillates (including De-Aromatized)	Medium to heavy C-9 to C-14
83V92D	Gasoline	
	Petroleum Distillates (including De-Aromatized)	Medium
86VJT7	Petroleum Distillates (including De-Aromatized)	Medium
8EL4Y6	Petroleum Distillates (including De-Aromatized)	Medium to Heavy

WebCode	Item 1: Class	SubClass
8ET3K3	Petroleum Distillates (including De-Aromatized)	Medium
8JKBN9	Petroleum Distillates (including De-Aromatized)	Неаvy
8Q2WPZ	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (nC8 - nC15)
8QJ3QB	Petroleum Distillates (including De-Aromatized)	Medium
8R999M	Petroleum Distillates (including De-Aromatized)	Неаvy
8RDTWP	Petroleum Distillates (including De-Aromatized)	Medium to heavy
8VAAB6	Petroleum Distillates (including De-Aromatized)	C-8 to C-15 Medium (Kerosene)
8W4ZGJ	Petroleum Distillates (including De-Aromatized)	Неаvy
8WMP2Y	Petroleum Distillates (including De-Aromatized)	Medium to heavy (C9-C15)
8Z3GP8	Petroleum Distillates (including De-Aromatized)	Medium
8ZAEB4	Petroleum Distillates (including De-Aromatized)	Неаvy
94ME7B	Petroleum Distillates (including De-Aromatized)	Medium to heavy (C9-C15)
96WT7P	Petroleum Distillates (including De-Aromatized)	Неаvy
9A7RYH	Petroleum Distillates (including De-Aromatized)	Heavy, nC9-nC14
9CGQYH	Petroleum Distillates (including De-Aromatized)	Неачу
9GUMMT	Others - Miscellaneous	Light and medium range aromatics, heavy petroleum distillate
9KB268	Petroleum Distillates (including De-Aromatized)	Неаvy
9KRXVL	Petroleum Distillates (including De-Aromatized)	Medium
9LZ8MJ	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate
9TPH49	Petroleum Distillates (including De-Aromatized)	Medium
9VRNCM	Petroleum Distillates (including De-Aromatized)	Medium
A9AVMT	Petroleum Distillates (including De-Aromatized)	C9 - C12
AA6H34	Petroleum Distillates (including De-Aromatized)	Неачу
AFABF8	Petroleum Distillates (including De-Aromatized)	Неачу
AFWJNQ	Petroleum Distillates (including De-Aromatized)	Неачу
AHHAT2	Petroleum Distillates (including De-Aromatized)	Medium
AJT86X	Aromatic Products	Medium
	Petroleum Distillates (including De-Aromatized)	Неачу
AUQ9JM	Petroleum Distillates (including De-Aromatized)	C9-C15
AURZGU	Petroleum Distillates (including De-Aromatized)	Неачу
AUT3XL	Petroleum Distillates (including De-Aromatized)	Medium to heavy
AWH9GX	Petroleum Distillates (including De-Aromatized)	Medium
AZ24JQ	Petroleum Distillates (including De-Aromatized)	Medium
B4H2DY	Petroleum Distillates (including De-Aromatized)	Неачу
B4VFW2	Petroleum Distillates (including De-Aromatized)	Неачу
B92BCV	Petroleum Distillates (including De-Aromatized)	Medium
BHWAAV	Petroleum Distillates (including De-Aromatized)	Medium to Heavy Range (C8 - C15)

WebCode	Item 1: Class	SubClass
BMPDYT	Petroleum Distillates (including De-Aromatized)	Неаvy
BNJW62	Petroleum Distillates (including De-Aromatized)	C9 - C15 (Heavy)
BRFKJM	Petroleum Distillates (including De-Aromatized)	Heavy Petroleum Distillate
BTYCT8	Petroleum Distillates (including De-Aromatized)	Medium
C68LJU	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C9-C14 range)
C7XT27	Petroleum Distillates (including De-Aromatized)	Medium
CGCWZP	Petroleum Distillates (including De-Aromatized)	Medium
CJ6KK7	Petroleum Distillates (including De-Aromatized)	Medium
CM42TT	Petroleum Distillates (including De-Aromatized)	Medium
CN28HZ	Petroleum Distillates (including De-Aromatized)	Medium to Heavy C9 - C15
CNEY9W	Petroleum Distillates (including De-Aromatized)	Medium
CP9PEB	Petroleum Distillates (including De-Aromatized)	Medium
CWAWZ6	Petroleum Distillates (including De-Aromatized)	Medium
CZR73B	Petroleum Distillates (including De-Aromatized)	Medium
D7ATD8	Petroleum Distillates (including De-Aromatized)	Medium
D84KJL	Petroleum Distillates (including De-Aromatized)	Medium
D8JYQV	Petroleum Distillates (including De-Aromatized)	Неачу
D9Y3M9	Gasoline	
	Petroleum Distillates (including De-Aromatized)	Medium
DCFMB9	Petroleum Distillates (including De-Aromatized)	Неачу
DJYNT8	Petroleum Distillates (including De-Aromatized)	Medium
DPN9TG	Petroleum Distillates (including De-Aromatized)	Med to Heavy
DT99YN	Others - Miscellaneous	Light and medium aromatic products, Heavy
DTNIDK	Petroleum Distillates (including De-Aromatized)	Medium
DUMKWT	Petroleum Distillates (including De-Aromatized)	Heavy
DXYKXQ	Petroleum Distillates (including De-Aromatized)	, Medium
E4926U	Petroleum Distillates (including De-Aromatized)	Medium to heavy (C9-C14)
E78N8W	Petroleum Distillates (including De-Aromatized)	Medium
E9C8FQ	Petroleum Distillates (including De-Aromatized)	Medium
EELAHL	Petroleum Distillates (including De-Aromatized)	Heavy
EFGTL9	Petroleum Distillates (including De-Aromatized)	Medium (C8-C14)
EGVBRY	Petroleum Distillates (including De-Aromatized)	Medium-Heavy
ERB6YL	Petroleum Distillates (including De-Aromatized)	Heavy (C10-C15)
EWKDAN	Petroleum Distillates (including De-Aromatized)	Heavy (C9-C15)
F2AGCR	Petroleum Distillates (including De-Aromatized)	Неачу
F76BAT	Petroleum Distillates (including De-Aromatized)	Medium C9-C13
F8JKHT	Petroleum Distillates (including De-Aromatized)	Medium-heavy

WebCode	Item 1: Class	SubClass
F8X66B	Petroleum Distillates (including De-Aromatized)	Medium to Heavy
F9TKJU	Petroleum Distillates (including De-Aromatized)	Medium - heavy
FBJQXY	Petroleum Distillates (including De-Aromatized)	Medium (C7-C15)
FCDEFU	Petroleum Distillates (including De-Aromatized)	Medium
FJAENV	Petroleum Distillates (including De-Aromatized)	Неаvy
FP3CJD	Petroleum Distillates (including De-Aromatized)	C9 - C14
FPJQP3	Petroleum Distillates (including De-Aromatized)	Heavy (C9 - C15)
FWZYJQ	Petroleum Distillates (including De-Aromatized)	Medium
FZYKZV	Petroleum Distillates (including De-Aromatized)	Неаvy
G33MCH	Petroleum Distillates (including De-Aromatized)	Medium
G6TUUU	Petroleum Distillates (including De-Aromatized)	C7-C15
GAK3WE	Petroleum Distillates (including De-Aromatized)	C9 - C15
GC7RE7	Petroleum Distillates (including De-Aromatized)	Medium
GQA4VR	Petroleum Distillates (including De-Aromatized)	Medium
GZWAKH	Petroleum Distillates (including De-Aromatized)	C8-C15
H4CUDP	Petroleum Distillates (including De-Aromatized)	Medium
H6HJA8	Petroleum Distillates (including De-Aromatized)	Неачу
H7278P	Petroleum Distillates (including De-Aromatized)	Неачу
H7HFZP	Petroleum Distillates (including De-Aromatized)	Medium
HA2ECY	Petroleum Distillates (including De-Aromatized)	Medium
HERWNP	Petroleum Distillates (including De-Aromatized)	Неачу
HFMGDA	Petroleum Distillates (including De-Aromatized)	C8-C15 (medium to heavy)
HGHWP8	Petroleum Distillates (including De-Aromatized)	Medium
HPTCDU	Petroleum Distillates (including De-Aromatized)	Medium
HRW8XW	Petroleum Distillates (including De-Aromatized)	Medium
HTC93K	Petroleum Distillates (including De-Aromatized)	C8-C15
HW86M6	Petroleum Distillates (including De-Aromatized)	Неачу
HWVJYN	Petroleum Distillates (including De-Aromatized)	Medium
J3UAY7	Petroleum Distillates (including De-Aromatized)	Medium product range
J6VHXN	Petroleum Distillates (including De-Aromatized)	Medium
J93TXY	Petroleum Distillates (including De-Aromatized)	Medium to heavy C9-C15
JAVHML	Petroleum Distillates (including De-Aromatized)	Неаvy (С8-С15)
JGDX94	Petroleum Distillates (including De-Aromatized)	Medium
JKBHRT	Petroleum Distillates (including De-Aromatized)	Heavy (C9-C16) (Kerosene)
JND8LN	Petroleum Distillates (including De-Aromatized)	Medium
JP7AZQ	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
JTPH9Q	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
JVWKGF	Petroleum Distillates (including De-Aromatized)	Medium

WebCode Item 1: Class	SubClass
JW6XVW Petroleum Distillates (including De-Aromatized)	Medium to heavy (C8-C14)
JYETNF Others - Miscellaneous	HPD, light and medium range aromatic
	products
K3BINZIN Petroleum Distillates (including De-Aromatized)	Medium
K4MDAR Others - Miscellaneous	Heavy
K8MYQW Petroleum Distillates (including De-Aromatized)	Medium to heavy
K9C6A9 Petroleum Distillates (including De-Aromatized)	Medium
K9FPWB Petroleum Distillates (including De-Aromatized)	Heavy
K9UDZN Petroleum Distillates (including De-Aromatized)	Heavy
KE3FLR Petroleum Distillates (including De-Aromatized)	Medium
KMFGQT Petroleum Distillates (including De-Aromatized)	Medium
L3KE34 Petroleum Distillates (including De-Aromatized)	Medium-heavy
L78PNN Petroleum Distillates (including De-Aromatized)	Medium
LCBQNH Petroleum Distillates (including De-Aromatized)	Medium
LCCT7A Petroleum Distillates (including De-Aromatized)	Неачу
LCULZR Petroleum Distillates (including De-Aromatized)	Heavy (C9-C15)
LD4T3K Petroleum Distillates (including De-Aromatized)	HEAVY
LG4ZNH Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C8-C15)
LG6WWT Petroleum Distillates (including De-Aromatized)	Medium
LHYKFN Petroleum Distillates (including De-Aromatized)	Medium
LJU769 Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
LKNP9V Petroleum Distillates (including De-Aromatized)	Medium
LLHFEA Petroleum Distillates (including De-Aromatized)	Неачу
LTXDNE Petroleum Distillates (including De-Aromatized)	Medium
LUQ8M4 Petroleum Distillates (including De-Aromatized)	Неачу (С8 - С15)
LZH89R Petroleum Distillates (including De-Aromatized)	Heavy C8-C16
LZYLBU Petroleum Distillates (including De-Aromatized)	C9-C14
M4EHB6 Petroleum Distillates (including De-Aromatized)	Неачу
M8XDDW Petroleum Distillates (including De-Aromatized)	Неачу
MCPH9L Petroleum Distillates (including De-Aromatized)	Medium to heavy (C8-C15)
MPVV4R Petroleum Distillates (including De-Aromatized)	Medium
MRK2L4 Petroleum Distillates (including De-Aromatized)	Неачу
MV2CWL Petroleum Distillates (including De-Aromatized)	HPD
N2PBRT Petroleum Distillates (including De-Aromatized)	Неачу
NAGRGX Petroleum Distillates (including De-Aromatized)	Medium C9-C14
NBC8UU Petroleum Distillates (including De-Aromatized)	Medium
NC4D7E Petroleum Distillates (including De-Aromatized)	Medium
NJLULU Petroleum Distillates (including De-Aromatized)	Неачу

WebCode	Item 1: Class	SubClass
NL6X7L	Petroleum Distillates (including De-Aromatized)	Medium
NND7E7	Petroleum Distillates (including De-Aromatized)	Med. to heavy (C8-C15)
NTUFLH	Petroleum Distillates (including De-Aromatized)	Medium
NX7GP2	Petroleum Distillates (including De-Aromatized)	Medium
NZ9CBP	Petroleum Distillates (including De-Aromatized)	Неаvy
P7E8R4	Petroleum Distillates (including De-Aromatized)	Medium
PAUMFA	Petroleum Distillates (including De-Aromatized)	(C9 - C14) Heavy
PB8CL9	Petroleum Distillates (including De-Aromatized)	Medium
PBK4C4	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C8-C15)
PBPFXE	Petroleum Distillates (including De-Aromatized)	Medium
PCYDHJ	Petroleum Distillates (including De-Aromatized)	Heavy (C8-C14)
PFZJZA	Petroleum Distillates (including De-Aromatized)	Неачу
PGU34W	Petroleum Distillates (including De-Aromatized)	Medium C8-C13
PLPTCU	Petroleum Distillates (including De-Aromatized)	Medium C8-C13
PMJJH9	Petroleum Distillates (including De-Aromatized)	Medium to heavy
PNFZU6	Petroleum Distillates (including De-Aromatized)	MEDIUM
PVYBVD	Petroleum Distillates (including De-Aromatized)	C10 - C14
PVYEKG	Petroleum Distillates (including De-Aromatized)	C9-C15
PWNK4T	Petroleum Distillates (including De-Aromatized)	Medium
QFZRUF	Petroleum Distillates (including De-Aromatized)	Неаvy
QHPXCQ	Petroleum Distillates (including De-Aromatized)	Medium-Heavy C9-C14
R3722M	Petroleum Distillates (including De-Aromatized)	HEAVY
R3MTED	Petroleum Distillates (including De-Aromatized)	Неачу
<b>R3ZPFC</b>	Petroleum Distillates (including De-Aromatized)	Неачу
R6XTJK	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C9-C14)
RD3MQ7	Petroleum Distillates (including De-Aromatized)	Неачу
RR3JT6	Petroleum Distillates (including De-Aromatized)	Medium
rtx6gq	Petroleum Distillates (including De-Aromatized)	Medium
RTX6JB	Petroleum Distillates (including De-Aromatized)	Medium
T8CPHV	Petroleum Distillates (including De-Aromatized)	Medium
TALZBR	Petroleum Distillates (including De-Aromatized)	Medium
TDZEYY	Gasoline	
	Petroleum Distillates (including De-Aromatized)	Неачу
TJN8Y6	Petroleum Distillates (including De-Aromatized)	Medium to heavy
U4AFJD	Petroleum Distillates (including De-Aromatized)	Medium
UB8Y4G	Petroleum Distillates (including De-Aromatized)	Неачу
UERVT8	Petroleum Distillates (including De-Aromatized)	Medium
UGZ3XK	Petroleum Distillates (including De-Aromatized)	Неачу

WebCode Item 1: Class		SubClass
UP8V7F Petroleum Distillate	es (including De-Aromatized)	Medium
UPRHK4 Petroleum Distillate	es (including De-Aromatized)	Medium to heavy (C8-C14)
UQKJGE Petroleum Distillate	es (including De-Aromatized)	Неачу (С8 - С14)
UUMDJQ Petroleum Distillate	es (including De-Aromatized)	Medium
UVDJXV Others - Miscellan	eous	Medium
UXLQ3A Petroleum Distillate	es (including De-Aromatized)	Medium to Heavy (carbon range C9-C15)
UXMNBJ Petroleum Distillate	es (including De-Aromatized)	Medium
V7P6HF Petroleum Distillate	es (including De-Aromatized)	Medium (C8 - C13)
V93R3F Petroleum Distillate	es (including De-Aromatized)	Неачу
VDRGED Petroleum Distillate	es (including De-Aromatized)	Неачу
VDXEZB Petroleum Distillate	es (including De-Aromatized)	Medium
VNHNN4 Others - Miscellan	eous	Неачу
VNTX9N Petroleum Distillate	es (including De-Aromatized)	Medium
VTK32T Normal Alkanes Pr	oducts	MPD
VW7T9N Petroleum Distillate	es (including De-Aromatized)	Medium
VWABBU Petroleum Distillate	es (including De-Aromatized)	Medium
VXFTAP Petroleum Distillate	es (including De-Aromatized)	Medium
VXFVW9 Petroleum Distillate	es (including De-Aromatized)	Medium (C8-C14)
W2G2CE Petroleum Distillate	es (including De-Aromatized)	Medium to heavy, aromatized
W6XLZF Petroleum Distillate	es (including De-Aromatized)	Неачу
WCFQDA Petroleum Distillate	es (including De-Aromatized)	Medium
WMVUB8 Petroleum Distillate	es (including De-Aromatized)	Additional aromatic solvent
WRVVJG Petroleum Distillate	es (including De-Aromatized)	Medium
WT2DGC Petroleum Distillate	es (including De-Aromatized)	Неачу
WT3F3B Petroleum Distillate	es (including De-Aromatized)	Medium
WW2LN9 Petroleum Distillate	es (including De-Aromatized)	Неачу
WXWA4H Petroleum Distillate	es (including De-Aromatized)	Неачу
WZLH8R Others - Miscellan	eous	Medium
X79L2F Petroleum Distillate	es (including De-Aromatized)	Medium Petroleum Distillate (MPD)
X79QAW Petroleum Distillate	es (including De-Aromatized)	Неачу
XCW73B Petroleum Distillate	es (including De-Aromatized)	Неачу
XLJEG7 Petroleum Distillate	es (including De-Aromatized)	Medium
Y6P7XY Petroleum Distillate	es (including De-Aromatized)	Medium to heavy
Y8XCHE Petroleum Distillate	es (including De-Aromatized)	Medium
YAXUAE Petroleum Distillate	es (including De-Aromatized)	Heavy (HPD)
YCB844 Petroleum Distillate	es (including De-Aromatized)	Неаvy
YDW3HV Petroleum Distillate	es (including De-Aromatized)	Неаvy
YERLLH Petroleum Distillate	es (including De-Aromatized)	Medium

WebCode	Item 1: Class		SubClass
YLUQH9	Petroleum Distillates (including De-Aromatized)		Medium
YMNGNA	APetroleum Distillates (including De-Aromatized)		Medium
YPA9QC	Petroleum Distillates (including De-Aromatized)		Medium to Heavy (C9 to C14)
YQ977E	Others - Miscellaneous		Medium Aromatic & Medium-Heavy Petroleum Distillate (C8-C15)
YTFN7V	Petroleum Distillates (including De-Aromatized)		C9-C14
YU6RY3	Petroleum Distillates (including De-Aromatized)		C8-C14
YXAEXZ	Others - Miscellaneous		Неачу
YYGZ6D	Petroleum Distillates (including De-Aromatized)		Medium
ZEAYKE	Petroleum Distillates (including De-Aromatized)		(C9 - C14) Heavy
ZGFDBT	Petroleum Distillates (including De-Aromatized)		Medium
ZJ6LGN	Others - Miscellaneous		Medium
ZKGCUY	Petroleum Distillates (including De-Aromatized)		Medium to heavy, C9-C15
ZKZ6KB	Petroleum Distillates (including De-Aromatized)		Неачу
ZN29EH	Petroleum Distillates (including De-Aromatized)		HPD (C9-C15)
ZU7ZP2	Petroleum Distillates (including De-Aromatized)		Неачу
ZVCRBM	Petroleum Distillates (including De-Aromatized)		Medium C9-C14
ZZ8JJJ	Petroleum Distillates (including De-Aromatized)		Medium (C9-C14)
Respon	se Summary		Total Participants: 307
<u>ltem</u>	1: Class		
Petr	roleum Distillates (including De-Aromatized)	29	1 Totals may add up to more than the total
Oth	1ers - Miscellaneous	1,	4 number of participants because some
Ga	soline	,	4 substance classes detected.
Aro	matic Products		3

1

Normal Alkanes Products

## **Flammable Identification**

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

WebCode	Item 2: Class	SubClass
22KCWY	Petroleum Distillates (including De-Aromatized)	Medium
286DCC	Petroleum Distillates (including De-Aromatized)	Medium-heavy (C8-C15)
29X79V	Petroleum Distillates (including De-Aromatized)	Medium product range
2AULKR	Petroleum Distillates (including De-Aromatized)	Medium (C8 - C13)
2DBAWC	Others - Miscellaneous	Medium Aromatic/PD C9-C14 Medium to Heavy
2DWKVK	Petroleum Distillates (including De-Aromatized)	Неачу
2E6XE8	Petroleum Distillates (including De-Aromatized)	Неачу
2EQJV4	Petroleum Distillates (including De-Aromatized)	Medium to heavy C8-C15
2GAH8D	Petroleum Distillates (including De-Aromatized)	Medium
2L6C6E	Petroleum Distillates (including De-Aromatized)	C8 - C15
2NUJMQ	Petroleum Distillates (including De-Aromatized)	Неачу
2QXD49	Petroleum Distillates (including De-Aromatized)	Medium
2X2F99	Petroleum Distillates (including De-Aromatized)	Heavy
2Z8JGY	Petroleum Distillates (including De-Aromatized)	Medium (C9 - C14)
32JVH2	Petroleum Distillates (including De-Aromatized)	Medium
3AVU96	Petroleum Distillates (including De-Aromatized)	Неачу
3DRKCV	Petroleum Distillates (including De-Aromatized)	Medium to Heavy Range (C9 to C14)
3EJLA8	Petroleum Distillates (including De-Aromatized)	Medium
3GUEE8	Petroleum Distillates (including De-Aromatized)	Medium
3JVNZA	Petroleum Distillates (including De-Aromatized)	Medium to heavy
3KPBX7	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate (MPD)
3P6R7B	Petroleum Distillates (including De-Aromatized)	Неачу
3TJMM9	Petroleum Distillates (including De-Aromatized)	MEDIUM
3UCB8P	Others - Miscellaneous	Aromatic Product with Medium Petroleum
		Distillate
3XFZYX	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C9-C14)
3YRN9C	Petroleum Distillates (including De-Aromatized)	Heavy
42U4XE	Petroleum Distillates (including De-Aromatized)	Medium to heavy (the carbon number range is from C7 to C15)
43NU4T	Petroleum Distillates (including De-Aromatized)	Medium to heavy
48X6ZU	Petroleum Distillates (including De-Aromatized)	Неачу
4CR4BJ	Petroleum Distillates (including De-Aromatized)	Неачу
4D84TM	Others - Miscellaneous	Medium to Heavy
4DNKMF	Petroleum Distillates (including De-Aromatized)	Medium
4HMPPZ	Petroleum Distillates (including De-Aromatized)	Medium to heavy
4JV4RZ	Petroleum Distillates (including De-Aromatized)	Heavy (ATSM class 4)
4LFZCJ	Others - Miscellaneous	Medium
4LYU2Z	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C9-C14)
4MAJF7	Petroleum Distillates (including De-Aromatized)	Medium
4NP36A	Petroleum Distillates (including De-Aromatized)	MPD

WebCode	Item 2: Class	SubClass
4P3CFV	Petroleum Distillates (including De-Aromatized)	Medium to heavy
4PJQKK	Petroleum Distillates (including De-Aromatized)	Medium to heavy
4R4JWM	Petroleum Distillates (including De-Aromatized)	C9 - C14
4TDPTN	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C8-C14)
4ZXMLH	Petroleum Distillates (including De-Aromatized)	Medium (C9 - C12)
63G6C2	Petroleum Distillates (including De-Aromatized)	Heavy
68ELT2	Aromatic Products	Medium
	Petroleum Distillates (including De-Aromatized)	Heavy
6C6VYT	Petroleum Distillates (including De-Aromatized)	Medium to heavy (C9 - C14)
6DHPGE	Petroleum Distillates (including De-Aromatized)	Heavy (C8-C16)
6DZE3F	Petroleum Distillates (including De-Aromatized)	Heavy
6G2HV3	Petroleum Distillates (including De-Aromatized)	Medium
6JUBUR	Petroleum Distillates (including De-Aromatized)	C8 - C15
6K4BWE	Petroleum Distillates (including De-Aromatized)	Medium-Heavy C9-C15
6KLCR4	Petroleum Distillates (including De-Aromatized)	Medium (C7-C14)
6LRWF4	Petroleum Distillates (including De-Aromatized)	Неачу
6R6NVW	Petroleum Distillates (including De-Aromatized)	Неачу
6RHAGR	Petroleum Distillates (including De-Aromatized)	+ HPD
6RK298	Petroleum Distillates (including De-Aromatized)	Неачу
6YLBJ7	Petroleum Distillates (including De-Aromatized)	Medium
6ZWBFZ	Aromatic Products	Medium
	Petroleum Distillates (including De-Aromatized)	Неачу
76MZKB	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
7B76BQ	Petroleum Distillates (including De-Aromatized)	Medium-Heavy (C9-C14)
7JKYLL	Petroleum Distillates (including De-Aromatized)	C8-C14
7TRQVG	Petroleum Distillates (including De-Aromatized)	Medium
7VDH3D	Petroleum Distillates (including De-Aromatized)	Неачу
7VHWDT	Gasoline	
82ZPXQ	Petroleum Distillates (including De-Aromatized)	Medium to heavy C-9 to C-14
83V92D	Gasoline	
	Petroleum Distillates (including De-Aromatized)	Medium
86VJT7	Petroleum Distillates (including De-Aromatized)	Medium
8EL4Y6	Petroleum Distillates (including De-Aromatized)	Medium to Heavy
8ET3K3	Petroleum Distillates (including De-Aromatized)	Medium
8JKBN9	Petroleum Distillates (including De-Aromatized)	Heavy
8Q2WPZ	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (nC8 - nC15)
8QJ3QB	Petroleum Distillates (including De-Aromatized)	Medium
88999M	Petroleum Distillates (including De-Aromatized)	Heavy
8KD1WP	Petroleum Distillates (including De-Aromatized)	
8VAAB6	Petroleum Distillates (including De-Aromatized)	C-8 to C-15 Medium (Kerosene)
8W4ZGJ	Petroleum Distillates (including De-Aromatized)	
8WMP2Y	retroieum Distillates (including De-Aromatized)	Medium to heavy (C9-15)
823GP8	Petroleum Distillates (including De-Aromatized)	Medium

WebCode	Item 2: Class	SubClass
8ZAEB4	Petroleum Distillates (including De-Aromatized)	Неалу
94ME7B	Petroleum Distillates (including De-Aromatized)	Medium to heavy (C9-C15)
96WT7P	Petroleum Distillates (including De-Aromatized)	Неачу
9A7RYH	Petroleum Distillates (including De-Aromatized)	Heavy, nC9-nC14
9CGQYH	Petroleum Distillates (including De-Aromatized)	Неачу
9GUMMT	Others - Miscellaneous	Light and medium range aromatics, heavy
		petroleum distillate
9KB268	Petroleum Distillates (including De-Aromatized)	Неачу
9KRXVL	Petroleum Distillates (including De-Aromatized)	Medium
9LZ8MJ	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate
9TPH49	Petroleum Distillates (including De-Aromatized)	Medium
9VRNCM	Petroleum Distillates (including De-Aromatized)	Medium
A9AVMT	Petroleum Distillates (including De-Aromatized)	C9 - C12
AA6H34	Petroleum Distillates (including De-Aromatized)	Heavy
AFABF8	Petroleum Distillates (including De-Aromatized)	Heavy
AFWJNQ	Petroleum Distillates (including De-Aromatized)	Heavy
AHHAT2	Petroleum Distillates (including De-Aromatized)	Medium
AJT86X	Aromatic Products	Medium
	Petroleum Distillates (including De-Aromatized)	Heavy
AUQ9JM	Petroleum Distillates (including De-Aromatized)	C9-C15
AURZGU	Petroleum Distillates (including De-Aromatized)	Heavy
AUT3XL	Petroleum Distillates (including De-Aromatized)	Medium to heavy
AWH9GX	Petroleum Distillates (including De-Aromatized)	Medium
AZ24JQ	Petroleum Distillates (including De-Aromatized)	Medium
B4H2DY	Petroleum Distillates (including De-Aromatized)	Heavy
B4VFW2	Petroleum Distillates (including De-Aromatized)	Heavy
B92BCV	Petroleum Distillates (including De-Aromatized)	Medium
BHWAAV	Petroleum Distillates (including De-Aromatized)	Medium to Heavy Range (C8 - C15)
BMPDYI	Petroleum Distillates (including De-Aromatized)	
BINJW62	Petroleum Distillates (including De-Aromatized)	C9 - C15 (Heavy)
BREKJM	Petroleum Distillates (including De-Aromatized)	Heavy Petroleum Distillate
	Petroleum Distillates (including De-Aromatized)	
COOLJU	Petroleum Distillates (including De-Aromatized)	
	Petroleum Distillates (including De-Aromatized)	
CIGCWZF	Petroleum Distillates (including De-Aromatized)	Medium
CJORK/	Petroleum Distillates (including De-Aromatized)	Medium
	Patroloum Distillates (including De Aromatized)	Medium to Heavy C9 C15
	Petroleum Distillates (including De-Aromatized)	Medium
	Petroleum Distillates (including De Aromatized)	Medium
$(\lambda/\Delta)/74$	Petroleum Distillates (including De-Aromatized)	Medium
C7R73R	Petroleum Distillates (including De-Aromatized)	Medium
	Petroleum Distillates (including De-Aromatized)	Medium
UTAIDO	renoieum Distiliates (incluaing De-Aromatized)	meaiUIII

WebCode	Item 2: Class	SubClass
D84KJL	Petroleum Distillates (including De-Aromatized)	Heavy
D8JYQV	Petroleum Distillates (including De-Aromatized)	Неачу
D9Y3M9	Gasoline	
	Petroleum Distillates (including De-Aromatized)	Medium
DCFMB9	Petroleum Distillates (including De-Aromatized)	Heavy
DJYNT8	Petroleum Distillates (including De-Aromatized)	Medium
DPN9TG	Petroleum Distillates (including De-Aromatized)	Med to Heavy
DT99YN	Others - Miscellaneous	Light and medium aromatic products, Heavy
		petroleum distillate
DTNLDK	Petroleum Distillates (including De-Aromatized)	Medium
DUMKWT	Petroleum Distillates (including De-Aromatized)	Неаvy
DXYKXQ	Petroleum Distillates (including De-Aromatized)	Medium
E4926U	Petroleum Distillates (including De-Aromatized)	Medium to heavy (C9-C14)
E78N8W	Petroleum Distillates (including De-Aromatized)	Medium
E9C8FQ	Petroleum Distillates (including De-Aromatized)	Medium
EELAHL	Petroleum Distillates (including De-Aromatized)	Неаvy
EFGTL9	Petroleum Distillates (including De-Aromatized)	Medium (C8-C14)
EGVBRY	Petroleum Distillates (including De-Aromatized)	Medium-Heavy
ERB6YL	Petroleum Distillates (including De-Aromatized)	Heavy (C10-C15)
EWKDAN	Petroleum Distillates (including De-Aromatized)	Heavy (C9-C15)
F2AGCR	Petroleum Distillates (including De-Aromatized)	Неаvy
F76BAT	Petroleum Distillates (including De-Aromatized)	Medium C9-C13
F8JKHT	Petroleum Distillates (including De-Aromatized)	Medium-heavy
F8X66B	Petroleum Distillates (including De-Aromatized)	Medium to Heavy
F9TKJU	Petroleum Distillates (including De-Aromatized)	Medium - heavy
FBJQXY	Petroleum Distillates (including De-Aromatized)	Medium (C7 - C15)
FCDEFU	Petroleum Distillates (including De-Aromatized)	Medium
FJAENV	Petroleum Distillates (including De-Aromatized)	Heavy
FP3CJD	Petroleum Distillates (including De-Aromatized)	C9 - C14
FPJQP3	Petroleum Distillates (including De-Aromatized)	Heavy (C9 - C15)
FWZYJQ	Petroleum Distillates (including De-Aromatized)	Medium
FZYKZV	Petroleum Distillates (including De-Aromatized)	Heavy
G33MCH	Petroleum Distillates (including De-Aromatized)	Medium to Heavy C9-C15
G6TUUU	Petroleum Distillates (including De-Aromatized)	C7-C15
GAK3WE	Petroleum Distillates (including De-Aromatized)	C9 - C15
GC7RE7	Petroleum Distillates (including De-Aromatized)	Medium
GQA4VR	Petroleum Distillates (including De-Aromatized)	Medium
GZWAKH	Petroleum Distillates (including De-Aromatized)	C8-C15
H4CUDP	Petroleum Distillates (including De-Aromatized)	Medium
H6HJA8	Petroleum Distillates (including De-Aromatized)	Неалу
H7278P	Petroleum Distillates (including De-Aromatized)	Неалу
H7HFZP	Petroleum Distillates (including De-Aromatized)	Medium
HA2ECY	Petroleum Distillates (including De-Aromatized)	Medium

WebCode	Item 2: Class	SubClass
HERWNP	Petroleum Distillates (including De-Aromatized)	Heavy
HFMGDA	Petroleum Distillates (including De-Aromatized)	C8-C15 (medium to heavy)
HGHWP8	Petroleum Distillates (including De-Aromatized)	Medium
HPTCDU	Petroleum Distillates (including De-Aromatized)	Medium
HRW8XW	Petroleum Distillates (including De-Aromatized)	Medium
HTC93K	Petroleum Distillates (including De-Aromatized)	C8-C15
HW86M6	Petroleum Distillates (including De-Aromatized)	Неачу
HWVJYN	Petroleum Distillates (including De-Aromatized)	Medium
J3UAY7	Petroleum Distillates (including De-Aromatized)	Medium product range
J6VHXN	Petroleum Distillates (including De-Aromatized)	Medium
J93TXY	Petroleum Distillates (including De-Aromatized)	Medium to heavy C9-C15
JAVHML	Petroleum Distillates (including De-Aromatized)	Неачу (С8-С15)
JGDX94	Petroleum Distillates (including De-Aromatized)	Medium
JKBHRT	Petroleum Distillates (including De-Aromatized)	Heavy (C9-C16) (Kerosene)
JND8LN	Petroleum Distillates (including De-Aromatized)	Medium
JP7AZQ	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
JTPH9Q	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
JVWKGF	Petroleum Distillates (including De-Aromatized)	Medium
JW6XVW	Petroleum Distillates (including De-Aromatized)	Medium to heavy (C8-C14)
JYETNF	Others - Miscellaneous	HPD, light and medium range aromatic products
K3BNZN	Petroleum Distillates (including De-Aromatized)	Medium
K4MDAR	Others - Miscellaneous	Неачу
K8MYQW	Petroleum Distillates (including De-Aromatized)	Medium to heavy
К9С6А9	Petroleum Distillates (including De-Aromatized)	Medium
K9FPWB	Petroleum Distillates (including De-Aromatized)	Неачу
K9UDZN	Petroleum Distillates (including De-Aromatized)	Неачу
<b>KE3FLR</b>	Petroleum Distillates (including De-Aromatized)	Medium
KMFGQT	Petroleum Distillates (including De-Aromatized)	Medium
L3KE34	Petroleum Distillates (including De-Aromatized)	Medium-heavy
L78PNN	Petroleum Distillates (including De-Aromatized)	Medium
LCBQNH	Petroleum Distillates (including De-Aromatized)	Medium
LCCT7A	Petroleum Distillates (including De-Aromatized)	Heavy
LCULZR	Petroleum Distillates (including De-Aromatized)	Heavy (C9-C15)
LD4T3K	Petroleum Distillates (including De-Aromatized)	HEAVY
LG4ZNH	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C8-C15)
LG6WWT	Petroleum Distillates (including De-Aromatized)	Medium
LHYKEN	Petroleum Distillates (including De-Aromatized)	
	Petroleum Distillates (including De-Aromatized)	Medium (C8-C13)
LKNY9V	retroieum Distillates (including De-Aromatized)	IVledium
	retroleum Distillates (including De-Aromatized)	
	Petroleum Distillates (including De-Aromatized)	
	retroieum Distillates (including De-Aromatized)	
LZH89R	Petroleum Distillates (including De-Aromatized)	Heavy C8-C16

WebCode	Item 2: Class	SubClass
LZYLBU	Petroleum Distillates (including De-Aromatized)	C9-C14
M4EHB6	Petroleum Distillates (including De-Aromatized)	Неачу
M8XDDW	Petroleum Distillates (including De-Aromatized)	Неачу
MCPH9L	Petroleum Distillates (including De-Aromatized)	Medium to heavy (C8-C15)
MPVV4R	Petroleum Distillates (including De-Aromatized)	Medium
MRK2L4	Petroleum Distillates (including De-Aromatized)	Неачу
MV2CWL	Petroleum Distillates (including De-Aromatized)	HPD
N2PBRT	Petroleum Distillates (including De-Aromatized)	Неачу
NAGRGX	Petroleum Distillates (including De-Aromatized)	Medium C9-C14
NBC8UU	Petroleum Distillates (including De-Aromatized)	Medium
NC4D7E	Petroleum Distillates (including De-Aromatized)	Medium
NJLULU	Petroleum Distillates (including De-Aromatized)	Неачу
NL6X7L	Petroleum Distillates (including De-Aromatized)	Medium
NND7E7	Petroleum Distillates (including De-Aromatized)	Med. to heavy (C8-C15)
NTUFLH	Petroleum Distillates (including De-Aromatized)	Medium
NX7GP2	Petroleum Distillates (including De-Aromatized)	Medium
NZ9CBP	Petroleum Distillates (including De-Aromatized)	Неачу
P7E8R4	Petroleum Distillates (including De-Aromatized)	Medium
PAUMFA	Petroleum Distillates (including De-Aromatized)	(C9 - C15) Heavy
PB8CL9	Petroleum Distillates (including De-Aromatized)	Medium
PBK4C4	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C8-C15)
PBPFXE	Petroleum Distillates (including De-Aromatized)	Medium
PCYDHJ	Petroleum Distillates (including De-Aromatized)	Heavy (C8-C14)
PFZJZA	Petroleum Distillates (including De-Aromatized)	Неачу
PGU34W	Petroleum Distillates (including De-Aromatized)	Medium C8-C13
PLPTCU	Petroleum Distillates (including De-Aromatized)	Medium C8-C13
PMJJH9	Petroleum Distillates (including De-Aromatized)	Medium to heavy
PNFZU6	Petroleum Distillates (including De-Aromatized)	MEDIUM
PVYBVD	Petroleum Distillates (including De-Aromatized)	C10 - C14
PVYEKG	Petroleum Distillates (including De-Aromatized)	C9-C15
PWNK4T	Petroleum Distillates (including De-Aromatized)	Medium
QFZRUF	Petroleum Distillates (including De-Aromatized)	Неачу
QHPXCQ	Petroleum Distillates (including De-Aromatized)	Medium-Heavy C9-C14
R3722M	Petroleum Distillates (including De-Aromatized)	HEAVY
<b>R3MTED</b>	Petroleum Distillates (including De-Aromatized)	Неачу
R3ZPFC	Petroleum Distillates (including De-Aromatized)	Неачу
R6XTJK	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C9-C14)
RD3MQ7	Petroleum Distillates (including De-Aromatized)	Неачу
RR3JT6	Petroleum Distillates (including De-Aromatized)	Medium
rtx6gq	Petroleum Distillates (including De-Aromatized)	Medium
RTX6JB	Petroleum Distillates (including De-Aromatized)	Medium
T8CPHV	Petroleum Distillates (including De-Aromatized)	Medium
TALZBR	Petroleum Distillates (including De-Aromatized)	Medium

WebCode	Item 2: Class	SubClass
TDZEYY	Gasoline	
	Petroleum Distillates (including De-Aromatized)	Неачу
TJN8Y6	Petroleum Distillates (including De-Aromatized)	Medium to heavy
U4AFJD	Petroleum Distillates (including De-Aromatized)	Medium
UB8Y4G	Petroleum Distillates (including De-Aromatized)	Неачу
UERVT8	Petroleum Distillates (including De-Aromatized)	Medium
UGZ3XK	Petroleum Distillates (including De-Aromatized)	Неачу
UP8V7F	Petroleum Distillates (including De-Aromatized)	Medium
UPRHK4	Petroleum Distillates (including De-Aromatized)	Medium to heavy (C8-C14)
UQKJGE	Petroleum Distillates (including De-Aromatized)	Heavy (C8 - C14)
UUMDJQ	Petroleum Distillates (including De-Aromatized)	Medium
UVDJXV	Others - Miscellaneous	Medium
UXLQ3A	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (carbon range C9-C15)
UXMNBJ	Petroleum Distillates (including De-Aromatized)	Medium
V7P6HF	Petroleum Distillates (including De-Aromatized)	Medium (C8 - C13)
V93R3F	Petroleum Distillates (including De-Aromatized)	Неачу
VDRGED	Petroleum Distillates (including De-Aromatized)	Неачу
VDXEZB	Petroleum Distillates (including De-Aromatized)	Medium
VNHNN4	Others - Miscellaneous	Неачу
VNTX9N	Petroleum Distillates (including De-Aromatized)	Medium
VTK32T	Normal Alkanes Products	MPD
VW7T9N	Petroleum Distillates (including De-Aromatized)	Medium
VWABBU	Petroleum Distillates (including De-Aromatized)	Medium
VXFTAP	Petroleum Distillates (including De-Aromatized)	Medium
VXFVW9	Petroleum Distillates (including De-Aromatized)	Medium (C8-C14)
W2G2CE	Petroleum Distillates (including De-Aromatized)	Medium to heavy, aromatize
W6XLZF	Petroleum Distillates (including De-Aromatized)	Неаvy
WCFQDA	Petroleum Distillates (including De-Aromatized)	Medium
WMVUB8	Petroleum Distillates (including De-Aromatized)	Additional aromatic solvent
WRVVJG	Petroleum Distillates (including De-Aromatized)	Medium
WT2DGC	Petroleum Distillates (including De-Aromatized)	Неаvy
WT3F3B	Petroleum Distillates (including De-Aromatized)	Medium
WW2LN9	Petroleum Distillates (including De-Aromatized)	Неаvy
WXWA4H	Petroleum Distillates (including De-Aromatized)	Неачу
WZLH8R	Others - Miscellaneous	Medium
X79L2F	Petroleum Distillates (including De-Aromatized)	Medium Petroleum Distillate (MPD)
X79QAW	Petroleum Distillates (including De-Aromatized)	Неачу
XCW73B	Petroleum Distillates (including De-Aromatized)	Неачу
XLJEG7	Petroleum Distillates (including De-Aromatized)	Medium
Y6P7XY	Petroleum Distillates (including De-Aromatized)	Medium to heavy
Y8XCHE	Petroleum Distillates (including De-Aromatized)	Medium
YAXUAE	Petroleum Distillates (including De-Aromatized)	Heavy (HPD)
YCB844	Petroleum Distillates (including De-Aromatized)	Неаvy

WebCode	Item 2: Class	SubClass
YDW3HV	Petroleum Distillates (including De-Aromatized)	Heavy
YERLLH	Petroleum Distillates (including De-Aromatized)	Medium
YLUQH9	Petroleum Distillates (including De-Aromatized)	Medium
YMNGNM	Petroleum Distillates (including De-Aromatized)	Medium
YPA9QC	Petroleum Distillates (including De-Aromatized)	Medium to Heavy (C9 to C14)
YQ977E	Others - Miscellaneous	Medium Aromatic & Medium-Heavy Petroleum
		Distillate (C8-C15)
YTFN7V	Petroleum Distillates (including De-Aromatized)	C9-C14
YU6RY3	Petroleum Distillates (including De-Aromatized)	C8-C15
YXAEXZ	Others - Miscellaneous	Неачу
YYGZ6D	Petroleum Distillates (including De-Aromatized)	Medium
ZEAYKE	Petroleum Distillates (including De-Aromatized)	(C9 - C14) Heavy
ZGFDBT	Petroleum Distillates (including De-Aromatized)	Medium
ZJ6LGN	Others - Miscellaneous	Medium
ZKGCUY	Petroleum Distillates (including De-Aromatized)	Medium to heavy, C9-C15
ZKZ6KB	Petroleum Distillates (including De-Aromatized)	Неачу
ZN29EH	Petroleum Distillates (including De-Aromatized)	HPD (C9-C15)
ZU7ZP2	Petroleum Distillates (including De-Aromatized)	Неачу
ZVCRBM	Petroleum Distillates (including De-Aromatized)	Medium C9-C14
ZZ8JJJ	Petroleum Distillates (including De-Aromatized)	Medium (C9-C14)
Response	e Summary	Total Participants: 307

Item 2: Class	
Petroleum Distillates (including De-Aromatized)	291
Others - Miscellaneous	14
Gasoline	4
Aromatic Products	3
Normal Alkanes Products	1

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

# Flammable Recovery Techniques

		Adsorption/Elution	Headspace				
WebCode	Passive	Dynamic Adsorbent	Desorption	Rm Temp	Heated	°C	Other
22KCWY	✓	Carbon/Charcoal	CS2	1			
286DCC	✓	Carbon/Charcoal			1	80	
29X79V	1	Carbon/Charcoal	CS2 (carbon disulfide)	1			
2AULKR					1	90	
2DBAWC	1	Carbon/Charcoal	CS2		1	70	
2DWKVK		Tenax	Pentane		1	100	
2E6XE8	1	Carbon/Charcoal	cs2			90	
2EQJV4	1	Carbon/Charcoal	Carbon disulfide/Toluer	ne	1	80	
2GAH8D	✓	Carbon/Charcoal			1	60	
2L6C6E		✓ Carbon/Charcoal	carbon disulfid	e 🗸			solvent extraction (pentane solvent)
2NUJMQ	1	Carbon/Charcoal	Carbon Disulfic	de	1	60	
2QXD49	1	Carbon/Charcoal	Carbon Disulfic (CS2)	de			
2X2F99	1	Carbon/Charcoal	CS2/C26		1	~80	
2Z8JGY		Carbon/Charcoal	CS2				
32JVH2	1	Carbon/Charcoal	Carbon disulfic	le			
3AVU96	1	Carbon/Charcoal	Carbon disulfic	le			
3DRKCV	1	Carbon/Charcoal	carbon disulfid and toluene	e 🗸	1	60	
3EJLA8	1	Carbon/Charcoal	Carbon Disulfic	de	1	90	
3GUEE8		✓ Tenax	Thermal		1	130	
3JVNZA	1	Carbon/Charcoal	n-pentane		1	80	
3KPBX7	1	Carbon/Charcoal	Pentane, Carbo Disulfide	on			
3P6R7B	1	Carbon/Charcoal	Carbon Disulfic	de	1	70	
3TJMM9			PENTANE				
3UCB8P	1	Carbon/Charcoal	Carbon Disulfic	de			
3XFZYX	1	Carbon/Charcoal	Diethyl Ether		1	70	SPME for light Vol. heated at 40 deg. C (Carboxen/PDMS fiber was used)
3YRN9C	1	Carbon/Charcoal	Carbon disulfic	le	1	85	Heated headspace air sampling
42U4XE	1	solid phase microextraction (Carboxen/PDMS fiber)	Thermal				solvent extraction using diethylether as solvent

		Adsorption/Elution	ution Headspace				
WebCode	Passive	Dynamic Adsorbent	Desorption	Rm Temp	Heated	°C	Other
43NU4T	1	SPME	Methylene chloride, Therm	✓ nal			
48X6ZU	1	Carbon/Charcoal	Carbon Disulfi	de			
4CR4BJ	1	Carbon/Charcoal	carbon disulfic	le			
4D84TM	1	Carbon/Charcoal	500 microliter CS2	ſS	1	65	
4DNKMF			Hexane				
4HMPPZ	1	Carbon/Charcoal	carbon disulfic	le			
4JV4RZ	1	Carbon/Charcoal	CS2		1	90	
4LFZCJ	✓	Carbon	Dichlorometha	ne	1	80	
4LYU2Z	1	Carbon/Charcoal	Pentane		1	80	
4MAJF7	1	Carbon/Charcoal	Carbon Disulfi	de 🗸			
4NP36A	1	Carbon/Charcoal	CS2		1	60	
4P3CFV	1	Carbon/Charcoal	Carbon Disulfi	de			
4PJQKK	1	Carbon/Charcoal	CS2		1	73	
4R4JWM	1	Carbon/Charcoal	CS2		1	65	
4TDPTN					1	90	
4ZXMLH		✓ Tenax	Pentane				
63G6C2	1	SPME	Thermal		1	50	
68ELT2	1	Carbon/Charcoal	Carbon Disulfi	de			
6C6VYT	1	Carbon/Charcoal	carbon disulfic	le		65	
6DHPGE	1	Carbon/Charcoal	CS2 (Carbor disulfide)	1	1	90±10	
6DZE3F	1	Carbon/Charcoal	Carbon disulfic	de			
6G2HV3	1	Carbon/Charcoal	CS2		1	65	
6JUBUR	1	Carbon/Charcoal	CS2				
6K4BWE	1	Carbon/Charcoal	Dichlorometha	ne 🗸			Solvent extraction DCM
6KLCR4	1	Carbon/Charcoal	carbon disulfic	le	1	80	
6LRWF4	1	Carbon/Charcoal	Carbon Disulfi	de	1	80	
6R6NVW	1	Carbon/Charcoal	CS2		1	68	
6RHAGR	1	Carbon/Charcoal	CS2		1	65	
6RK298	1	Carbon/Charcoal	Carbon disulfic	de	1	84	Heated headspace air sampling
6YLBJ7	1	SPME			1	50	
6ZWBFZ	1	Carbon/Charcoal	Carbon Disulfi	de			
76MZKB		Carbon/Charcoal	Diethyl ether		1	70	
7B76BQ	1	Carbon/Charcoal	Carbon Disulfi	de			

	Adsorption/Elution		sorption/Elution	Headspace				
WebCode	Passive	Dynamic	Adsorbent	Desorption	Rm Temp	Heated	°C	Other
7JKYLL		1	TENAX	Thermal		1	100	
7TRQVG	1		Carbon/Charcoal	CS2		1	70	
7VDH3D			Carbon/Charcoal	hexane		1	80	
7VHWDT			Carbon/Charcoal					
82ZPXQ	1		Carbon/Charcoal	CS2		1	65	
83V92D	1		Carbon/Charcoal	Carbon disulfic	de			
86VJT7	1		Carbon/Charcoal	CS2		1	80	
8EL4Y6	1		Carbon/Charcoal			1	60	
8ET3K3	1		Tenax	Thermal				
8JKBN9			Carbon/Charcoal	carbon disulfic	de	1	89	
8Q2WPZ	1		Carbon/Charcoal	CS2				
8QJ3QB			Carbon/Charcoal	CS2		1	70	
8R999M							90	
8RDTWP		(	Carbon/Charcoal, SPME	Diethyl ether	- ✓			
8VAAB6			Carbon/Charcoal	Carbon Disulfi	de	1	80	
8W4ZGJ	1		Carbon/Charcoal	Pentane		1	60	
8WMP2Y	1		Carbon/Charcoal	Carbon Disulfi	de	1	69	
8Z3GP8			Carbon/Charcoal	carbon disulfic	de			
8ZAEB4	1		Carbon/Charcoal	Carbon Disulfi	de	1	62	
94ME7B	1		Carbon/Charcoal	Dichlorometha	ne	1	75	
96WT7P	1		Carbon/Charcoal			1	70	
9A7RYH	1		Carbon/Charcoal	Carbon Disulfi	de	1	76	
9CGQYH	1		Carbon/Charcoal	Carbon Disulfi	de			
9GUMMT	1		Carbon/Charcoal	Carbon disulfic	de	1	70	
9KB268	1		Carbon/Charcoal	CS2		1	68	
9KRXVL						1	90	
9LZ8MJ			Carbon/Charcoal	carbon disulfic	le	1	66	
9TPH49		1	Tenax TA	Thermal		1	70	Direct HS; SPME
9VRNCM	1		Carbon/Charcoal	CS2 (Carbor disulfide)	ı ✓			
A9AVMT	1		Carbon/Charcoal			1	60	
AA6H34			Carbon/Charcoal	CS2		1	69	
AFABF8	1	(	Carbon/Charcoal	CS2		1	77	
AFWJNQ	1		Carbon/Charcoal	Carbon Disulfic	de	1	80	
AHHAT2	1	,	Carbon/Charcoal	Carbon disulfic	de	1	90	

		Adsorption/Elution		Heo	adspace		
WebCode	Passive	Dynamic Adsorbent	Desorption	Rm Temp	Heated	°C	Other
AJT86X	1	Carbon/Charcoal	Carbon Disulfic	le			
AUQ9JM	1	Carbon/Charcoal	Carbon Disulfic	le			
AURZGU	1	Carbon/Charcoal	Carbon Disulfic	le	1	70	
AUT3XL	1	SPME	Diethyl Ether, Thermal		1	65	
AWH9GX	✓	Carbon/Charcoal	Carbon Disulfic	le	1	60	
AZ24JQ		✓ SPME					
B4H2DY	1	Carbon/Charcoal	Dichloromethar	ne 🗸	✓	85	
B4VFW2			pentane				
B92BCV	1	Carbon/Charcoal			1	80	
BHWAAV	1	Carbon/Charcoal	CS2				
BMPDYT	1	Carbon/Charcoal	Pentane				
BNJW62	1	Carbon/Charcoal	Carbon Disulfic	le	1	60	
BRFKJM	1	Carbon/Charcoal		1			
BTYCT8	1	Tenax	Thermal		1	90	
C68LJU	1	Carbon/Charcoal	Pentane		1	80	
C7XT27	1	Carbon/Charcoal	DCM	1	1		
CGCWZP	1	Carbon/Charcoal					
CJ6KK7	1	Carbon/Charcoal	Carbon Disulfic	le	1	60	
CM42TT	1	Carbon/Charcoal	CS2		1	70	
CN28HZ	1	Carbon/Charcoal	Carbon disulfid	le	1	70	
CNEY9W		Pentanic liquid extraction			1	90	
CP9PEB	1	Carbon/Charcoal	CS2		1	70	
CWAWZ6	1	Carbon/Charcoal	Diethyl ether		1	70	
CZR73B	1	Carbon/Charcoal	DICHLOROME <sup>®</sup> HANE	Т	1	80	
D7ATD8		<ul> <li>✓ Carbon/Charcoal, Carbotrap /Carbopack</li> </ul>	Thermal		1	90	
D84KJL	1	Carbon/Charcoal	CS2			65	
D8JYQV	1	Carbon/Charcoal	Carbon disulfid	le			
D9Y3M9	1	Carbon/Charcoal	Carbon disulfid	le			
DCFMB9	1	Carbon/Charcoal					
DJYNT8	1	Carbon/Charcoal	carbon disulfid	e			
DPN9TG	1	Carbon/Charcoal			1	66	
DT99YN	1	Carbon/Charcoal	CS2	1	1	70	
DTNLDK	1	Carbon/Charcoal			1	65	

		Ads	sorption/Elution		He	adspace		
WebCode	Passive	Dynamic	Adsorbent	Desorption	Rm Temp	Heated	°C	Other
DUMKWT	1		Carbon/Charcoal	Carbon disulfic	de	$\checkmark$	60	
DXYKXQ	1		Carbon/Charcoal	CS2	1			
E4926U	1		Carbon/Charcoal	CS2/Toluene	)			
E78N8W				Pentane		1	90	
E9C8FQ	1		Carbon/Charcoal	DCM/Butano		1	80	
EELAHL	1		Carbon/Charcoal	Carbon Disulfi	de	1	~60	
EFGTL9		1	Tenax TA	Thermal		1	100	
EGVBRY			Carbon/Charcoal			1	60	
ERB6YL	1		Carbon/Charcoal	Carbon Disulfi	de			
EWKDAN	1		Carbon/Charcoal			1	63	
F2AGCR	1		Carbon/Charcoal	CS2				
F76BAT						1	95	
F8JKHT	1		Carbon/Charcoal	Carbon Disulfi	de			
F8X66B	1		Carbon/Charcoal	Carbon Disulfi	de	1	65	
F9TKJU	1		Carbon/Charcoal	CS2		1	80	
FBJQXY	1	(	SPME DVB/CAR/PDMS)	Thermal		1	40	
FCDEFU	1		Carbon/Charcoal	Carbon Disulfi	de			
FJAENV	✓	(	Carbon/Charcoal	Carbon Disulfi	de			
FP3CJD	1		Carbon/Charcoal	carbon disulfic	le	1	65	
FPJQP3	✓		Carbon/Charcoal	Carbon disulfic	de	1	~70	
FWZYJQ	1		Carbon/Charcoal					
FZYKZV	✓	(	Carbon/Charcoal	Carbon Disulfi	de	1	90	
G33MCH	1	1	Carbon/Charcoal	CS2	1	1	70	
G6TUUU		1	Tenax TA	Thermal	1			
GAK3WE	1		Carbon/Charcoal	Carbon disulfic	de	1	60	
GC7RE7	1			Carbon disulphide		1	80	
GQA4VR			Carbon/Charcoal	pentane				
GZWAKH	1		Carbon/Charcoal	Dichlorometha	ne	1	70	
H4CUDP		1	Carbon/Charcoal	C5 (pentane)		1	80	
H6HJA8	1		Carbon/Charcoal	Carbon Disulfi	de			
H7278P	1		Carbon/Charcoal	CS2		1	90	
H7HFZP		1	Carbon/Charcoal	pentane		1	80	
HA2ECY	1		SPME	Thermal		1	130	
HERWNP	1		Carbon/Charcoal	pentane				

		Adsorption/Elution		Hec	idspace		
WebCode	Passive	Dynamic Adsorbent	Desorption	Rm Temp	Heated	°C	Other
HFMGDA	1	Carbon/Charcoal	Carbon Disulfid	е			
HGHWP8	1	Carbon/Charcoal	Carbon disulfid	e	1	80	
HPTCDU	1	Carbon/Charcoal	Carbon Disulfid	е	1	60	
HRW8XW	1	Carbon/Charcoal	Carbon Disulfid	е	1	60	
HTC93K	1	Carbon/Charcoal	DCM	DCM		70	
HW86M6	1	Carbon/Charcoal	CS2		1	79	
HWVJYN		Carbon/Charcoal	CS2				
J3UAY7	1		Thermal		1	110	
J6VHXN	1	Carbon/Charcoal	Carbon Disulfid	е	1	80	
J93TXY	1	Carbon/Charcoal	CS2		1	70	
JAVHML	1	Carbon/Charcoal	Carbon disulfid	e			
JGDX94	1	Carbon/Charcoal	CS2				
JKBHRT	1	Carbon/Charcoal	CS2				
JND8LN	1	Carbon/Charcoal	5% CS2 in pentane				
JP7AZQ	1	Carbon/Charcoal	Carbon Disulfid	e	1	90	
JTPH9Q					1	80	Liquid-Liquid Extraction with Diethyl Ether
JVWKGF	1	Carbon/Charcoal	CS2				
JW6XVW	1	SPME, CAR-PDMS fiber		1	1	70	
JYETNF	✓	Carbon/Charcoal	CS2		1	70	
K3BNZN	1	Carbon/Charcoal	Carbon Disulfid	е	1	<80	
K4MDAR	1	Carbon/Charcoal	Carbon disulfid	e	1	70	
K8MYQW	1	SPME Fiber (Carboxen-PDMS)	Thermal		1	80	
К9С6А9					1	90	
K9FPWB	1	Carbon/Charcoal	CS2				
K9UDZN	1	Carbon/Charcoal	CS2		1	65	
KE3FLR			Thermal	1	1	90	
KMFGQT	1	Carbon/Charcoal	Carbon Disulfide/Pentar	ie	1	86	
L3KE34	1	SPME-PDMS			1	50	
L78PNN		✓ Tenax	Thermal	1	1	130	
LCBQNH		Carbon/Charcoal	Carbon Disulfid	e 🗸			
LCCT7A	1	Carbon/Charcoal	CS2		1	60	

TABLE	E 2
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		Ads	sorption/Elution	He		eadspace		
WebCode	Passive	Dynamic	Adsorbent	Desorption	Rm Temp	Heated	°C	Other
LCULZR	1		Carbon/Charcoal	carbon disulfic	de	1	60	Headspace-starting temperature @ 35 degrees celsius and final temperature @ 100 degrees celsius.
LD4T3K	1		SPME CARBOX/PDMS	Thermal	1	1	80	
LG4ZNH	1		Carbon/Charcoal	Carbon Disulfi	de	✓	65	
LG6WWT				Hexane				
LHYKFN	1		Carbon/Charcoal	Carbon Disulfi	de	1	65	
LJU769						1	90	
LKNP9V	✓		Carbon/Charcoal			✓	70	
LLHFEA	1		Carbon/Charcoal	CS2		$\checkmark$	65	
LTXDNE	✓		Carbon/Charcoal			✓	65	
LUQ8M4	1		Carbon/Charcoal	Pentane	1			
LZH89R	1	(	Carbon/Charcoal, Pentane Extraction	CS2				
LZYLBU	1		Carbon/Charcoal	Dichlorometha	ne	1	60	
M4EHB6	1		Carbon/Charcoal	Carbon disulfi	de	✓	60	
M8XDDW	1		Carbon/Charcoal	CS2		1	70	
MCPH9L	✓		Carbon/Charcoal	carbon disulfic	de	✓	77	
MPVV4R	1		Carbon/Charcoal	Carbon Disulfi	de	1	60	
MRK2L4	✓		Carbon/Charcoal	Carbon Disulfi	de			
MV2CWL	1		Carbon/Charcoal	Carbon Disulfi	de			
N2PBRT		1	Carbon/Charcoal	carbon disulfic	de			
NAGRGX	1		Carbon/Charcoal	Carbon Disulfi	de	1	65	
NBC8UU			Carbon/Charcoal	CS2		1	80	
NC4D7E						1	85	
NJLULU	1		Tenax TA	Thermal			60/90	
NL6X7L	1		Carbon/Charcoal	carbon disulfic	de	1	90	
NND7E7	1		Carbon/Charcoal	CS2				
NTUFLH	1		Carbon/Charcoal	Carbon Disulfi	de	1	~80	
NX7GP2	1		Carbon/Charcoal	Carbon Disulfi	de			
NZ9CBP	1		Carbon/Charcoal	CS2				
P7E8R4	1		Carbon/Charcoal	CS2				
PAUMFA	1		Carbon/Charcoal	Carbon Disulfi	de	1	63	
PB8CL9	1		Carbon/Charcoal	Carbon Disulfi	de	1	60	

		Ad	sorption/Elution		He	adspace		
WebCode	Passive	Dynamic	Adsorbent	Desorption	Rm Temp	Heated	°C	Other
PBK4C4	✓		Carbon/Charcoal	Carbon disulfic	de			Solvent extraction, pentane
PBPFXE	1		Tenax Ta	Thermal				
PCYDHJ		1	Carbon/Charcoal	carbon disulfic	le	1	93	
PFZJZA			Carbon/Charcoal	Carbon Disulfi	de			
PGU34W		1	Tenax TA	Thermal		1	120	
PLPTCU			Carbon/Charcoal	Carbon disulfic	de	1	70	Extraction of the samples with dichloromethane
PMJJH9	1		Carbon/Charcoal, SPME	dichloromethar Thermal	ne,			extraction with hexane
PNFZU6				N-HEXANE				
PVYBVD	1		Carbon/Charcoal	CS2				
PVYEKG	1		Carbon/Charcoal	CS2		1	63	
PWNK4T	1		Carbon/Charcoal	CS2		1	80	
QFZRUF			Carbon/Charcoal	CS2				
QHPXCQ		1	Tenax	Thermal	1			Solvent extraction in CH2Cl2
R3722M	1		SPME	Thermal	1	1	50	Solvent Extraction by Hexane
<b>R3MTED</b>	1		Carbon/Charcoal	Pentane				
R3ZPFC			Carbon/Charcoal	CS2		1	65	
R6XTJK	1		Carbon/Charcoal	CS2				Item # 1 was also rinsed with CS2
RD3MQ7	1		Carbon/Charcoal	CS2		1	60	
RR3JT6	1		Carbon/Charcoal	Carbon Disulfi	de			
rtx6gq	1		Carbon/Charcoal	carbon disulfic	le	1	60	
RTX6JB	1		Carbon/Charcoal			1	65	
T8CPHV	1		Carbon/Charcoal	CS2		1	70	
TALZBR	1		Carbon/Charcoal	Carbon Disulfi	de			
TDZEYY	1		Carbon/Charcoal	CS2				
TJN8Y6	1		Carbon/Charcoal	Ethyl Ether		1	70	SPME used Carboxen/PDMS fiber and heated samples @ 40°C for 30 mins.
U4AFJD	1		Carbon/Charcoal	carbon sulphic	łe	1	90	
UB8Y4G	1		Carbon/Charcoal	Carbon disulfic (CS2)/C26	de	1	~80	
UERVT8	1		Carbon/Charcoal	CS2				
UGZ3XK	1		Carbon/Charcoal	Pentane		1	70	Solvent rinse

		Ads	orption/Elution		Hec	adspace		
WebCode	Passive	Dynamic	Adsorbent	Desorption	Rm Temp	Heated	°C	Other
UP8V7F	1	(	Carbon/Charcoal	CS2		1	60	
UPRHK4		(	Carbon/Charcoal			1	70	
UQKJGE		✓ (	Carbon/Charcoal	CS2		1	92	
UUMDJQ	1	(	Carbon/Charcoal	carbon disulfi	de			
UVDJXV	1	(	Carbon/Charcoal	DICHLOROME HANE	T	1	80	
UXLQ3A	1	(	Carbon/Charcoal	Carbon Disulfi	de			
UXMNBJ						1	70	
V7P6HF		1	Tenax			1	100	
V93R3F	1	(	Carbon/Charcoal	CS2 / C26		1	~80	
VDRGED		✓ (	Carbon/Charcoal	carbon disulfi	de	1	88	
VDXEZB	✓	(	Carbon/Charcoal	Carbon disulfi	de	1	60	
VNHNN4	✓	(	Carbon/Charcoal	carbon disulfi	de			
VNTX9N	1	(	Carbon/Charcoal	carbon disulfic	de	1	78	
VTK32T						1	80	
VW7T9N				Hexane				
VWABBU	✓	(	Carbon/Charcoal	Carbon Disulfi	de			
VXFTAP	1	(	Carbon/Charcoal	Carbon Disulfi	de			
VXFVW9	1	(	Carbon/Charcoal	Carbon Disulfi	de	1	65	
W2G2CE	1		SPME	Thermal		1	90	
W6XLZF		(	Carbon/Charcoal	CS2		1	60	
WCFQDA		(	Carbon/Charcoal			1	90	
WMVUB8		(	Carbon/Charcoal				85	
WRVVJG	✓	(	Carbon/Charcoal	Carbon disulfi	de	1	70	
WT2DGC	1	(	Carbon/Charcoal	Carbon Disulfi	de	1	60	
WT3F3B	1	(	Carbon/Charcoal	carbon disulfi	de	1	65	
WW2LN9	1	(	Carbon/Charcoal	carbon disulfi	de	1	~ 70	
WXWA4H	1	(	Carbon/Charcoal	Pentane		1	~68	Solvent extraction w/ pentane
WZLH8R	1	(	Carbon/Charcoal	Dichlorometha	ne			
X79L2F		(	Carbon/Charcoal			1		
X79QAW	1	(	Carbon/Charcoal	Carbon disulfi	de	1	69	
XCW73B		(	Carbon/Charcoal	carbon disulfic	de	✓	60	
XLJEG7		(	Carbon/Charcoal	Carbon Disulfi	de	1	80	
Y6P7XY	1	(	Carbon/Charcoal	methylene chloride	1	1	80	LLE (liquid liquid extraction)

		Ads	orption/Elution		He	adspace		
WebCode	Passive	Dynamic	Adsorbent	Desorption	Rm Temp	Heated	°C	Other
Y8XCHE	1	C	Carbon/Charcoal	Carbon Disulfic	de	1	70	
YAXUAE		C	Carbon/Charcoal			1		
YCB844		✓ (	Carbon/Charcoal	CS2		1	95	
YDW3HV				n-Pentane				
YERLLH		C	Carbon/Charcoal	CS2		1	70	
YLUQH9	1	C	Carbon/Charcoal	Carbon Disulfic	de	1	65	
YMNGNM	1	C	Carbon/Charcoal	carbon disulfic	e	1	71	
YPA9QC	✓	C	Carbon/Charcoal			1	85	
YQ977E	1	C	Carbon/Charcoal	Carbon Disulfic	de	1	70	
YTFN7V	1	C	Carbon/Charcoal	CS2				
YU6RY3	1	C	Carbon/Charcoal	DCM		1	70	
YXAEXZ	1	C	Carbon/Charcoal	Carbon Disulfic	de			
YYGZ6D	1	C	Carbon/Charcoal	CS2	1			
ZEAYKE	✓	C	Carbon/Charcoal	CS2		1	80	
ZGFDBT	1	C	Carbon/Charcoal	carbon disulfic	e			
ZJ6LGN	1	C	Carbon/Charcoal	Dichlorometha	ne	1	80	
ZKGCUY	1	C C	arbon/Charcoal, arboxen/PDMS - SPME	Ethyl Ether, Thermal-SPMI	=	1	70, 40 for SPME	Solid Phase Micro-extraction (SPME)
ZKZ6KB	1	C	Carbon/Charcoal	Pentane		1	80	
ZN29EH	$\checkmark$	C	Carbon/Charcoal	Carbon Disulfic	de	1	40	
ZU7ZP2	1	C	Carbon/Charcoal	Carbon Disulfic	de	1	70	
ZVCRBM	1	(	Carbon/Charcoal	Carbon Disulfic	de	1	65	
ZZ8JJJ	1	C	Carbon/Charcoal			1	65	
Respons	se Sum	mary			Headsp	ace		
Participant	S		Adsorption/Elut	ion	Rm Temp	Heated		
307			257		26	199		

## **Identification Techniques**

WebCode	GC	GC/MS	Other	WebCode	GC	GC/MS	Other	WebCode	GC	GC/MS	Other
22KCWY		1		6C6VYT		1		AA6H34		1	
286DCC		1		6DHPGE		1		AFABF8		1	
29X79V		1		6DZE3F		1		AFWJNQ		1	
2AULKR		1		6G2HV3		1		AHHAT2		1	
2DBAWC		1		6JUBUR	1	1		AJT86X	1	1	
2DWKVK	1			6K4BWE		1		AUQ9JM	1	1	Odor
2E6XE8	1	1		6KLCR4	1	1				/	Assessment
2EQJV4		1		6LRWF4		1		AURZGU	/	•	
2GAH8D		1		6R6NVW		1			•	•	
2L6C6E		1		6RHAGR		1			v	•	
2NUJMQ		1		6RK298		1				•	
2QXD49		1		6YLBJ7		1			/	v	
2X2F99		1		6ZWBFZ	✓	1			v	/	
2Z8JGY		1		76MZKB		1				•	
32JVH2		1		7B76BQ	1	1	Odor			•	
3AVU96	1	1				1	assessment			•	
3DRKCV		1				· ·				•	
3EJLA8		1				•				•	
3GUEE8		1				v ./				•	
3JVNZA		1				v ./		COOLJU		•	GC-FID
3KPBX7		1		822PXQ	/	•				•	
3P6R7B		1		03V9ZD	v	•					
3TJMM9		1		00VJI/		•		CJORK7			
3UCB8P		1		OLL410 QET2V2	1	• ./			v	1	
3XFZYX		1		QIVENIO	•				1	1	
3YRN9C		1							•	1	00000-1015
42U4XE		1				· /		$C \sqrt{\sqrt{\sqrt{\sqrt{76}}}}$		1	
43NU4T	1	1		86000VV		•	GC FID			1	
48X6ZU		1				1	OC-HD			1	
4CR4BJ		1				· /				1	
4D84TM		1		8W/47G1		· /				1	
4DNKMF		1		8\\/\\/P2Y		1		DOLO	1	1	
4HMPPZ		1		873GP8		1				1	
4JV4RZ		1		874FR4		1				1	
4LFZCJ		1		94MF7R		1		DPN9TG		1	
4LYU2Z			GC/MS-FID	96WT7P		1				1	
4MAJF7		1		947RYH	1	1				1	
4NP36A		1		90GQYH		1				1	
4P3CFV		1	GC/FID	9GUMMT		1				1	
4PJQKK		1		9KB268		1		F4926U		1	
4R4JWM		✓		9KRXVI	1	1		E78N8W		1	
4TDPTN	-	1		9LZ8MI		1		E9C8FQ	1	1	
4ZXMLH	1	<b>v</b>		9TPH49		1		EELAHI		1	
63G6C2		<b>v</b>		9VRNCM		1		EFGTL9		1	
68EL12	~	<i>√</i>		A9AVMT		1		EGVBRY		1	

WebCode	GC	GC/MS	Other	WebCode	GC	GC/MS	Other	WebCode	GC	GC/MS	Other
ERB6YL		1		K8MYQW		1		PMJJH9		1	
EWKDAN		1		K9C6A9		1		PNFZU6		1	
F2AGCR	1	1		K9FPWB		1		PVYBVD		1	
F76BAT		1		K9UDZN		1		PVYEKG		1	
F8JKHT		1		<b>KE3FLR</b>		1		PWNK4T	1		
F8X66B		1		KMFGQT		1		QFZRUF		1	
F9TKJU		1		L3KE34		1		QHPXCQ		1	
FBJQXY		1		L78PNN		1		R3722M	1	1	
FCDEFU		1		lcbqnh			GC-FID	<b>R3MTED</b>		1	
FJAENV		1		LCCT7A		1		R3ZPFC		1	
FP3CJD		1		LCULZR		1		R6XTJK		1	
FPJQP3		1		LD4T3K		1		RD3MQ7		1	
FWZYJQ		1		LG4ZNH		1		RR3JT6	1	1	
FZYKZV		1		LG6WWT		1		rtx6gq		1	
G33MCH		1		IHYKEN		1		RTX6.IB		1	
G6TUUU		1		1.0.769		1		T8CPHV		1	
GAK3WF	1	1		I KNP9V		1		TAL 7BR		1	
GC7RF7		1		LIHFFA		1		TD7FYY		1	
GQA4VR		1		ITXDNF		1		TIN8Y6		1	
G7WAKH		1				1		U4AFID	1	1	
H4CUDP		1		17H89R		1		UB8Y4G		1	
H6HIA8		1				1		UFRVT8		1	
H7278P		1		M4FHB6		1		UG73XK		1	
H7HF7P		1		M8XDDW		1		UP8V7F		1	
HA2FCY	1	1		MCPH9I		1		UPRHK4		1	
HFRWNP		1		MPVV4R		1		UQKIGF		1	
HEMGDA	1	1	odor	MRK214		1				1	
			assessment	MV2CWI		1		UVDIXV		1	
HGHWP8		1		N2PBRT		1		UXIQ3A		1	
HPTCDU		1		NAGRGX		1				1	
HRW8XW		1		NBC8UU		1		V7P6HF		1	
HTC93K		1		NC4D7F		1		V93R3F		1	
HW86M6		1		NIUIU		1		VDRGFD		1	
HWVJYN		1		NL6X7L		1		VDXEZB		1	
J3UAY7		1		NND7F7		1		VNHNN4		1	
J6VHXN	1			NTUFIH	1	1		VNTX9N		1	
J93TXY		1		NX7GP2		1		VTK32T	1	1	
JAVHML		1		N79CBP		1		VW7T9N		1	
JGDX94		1		P7F8R4		1		VWABBU		1	
JKBHRT		1		PAUMFA		1		VXFTAP		1	
JND8LN		1		PB8CL9	1	1		VXFVW9		1	
JP7AZQ		1		PBK4C4		1		W2G2CF		1	
JTPH9Q		1		PBPFXF		1		W6XLZF		1	
JVWKGF		1				1		WCFQDA		1	
JW6XVW		1		PFZ IZA		1		WMVUB8		1	
JYETNF		1		PGU34W		1	ATD-GCMS	WRVVIG		1	
K3BNZN	1	1		PLPTCU	1	1		WT2DGC		1	
K4MDAR		1		00							

TABLE 3

WebCode	GC	GC/M	S Other		WebCode	WebCode GC	WebCode GC GC/MS	WebCode GC GC/MS Other	WebCode GC GC/MS Other WebCode	WebCode GC GC/MS Other WebCode GC	WebCode GC GC/MS Other WebCode GC GC/MS	WebCode GC GC/MS Other WebCode GC GC/MS Other
WT3F3B		1										
WW2LN9		1										
WXWA4H		1										
WZLH8R		1										
X79L2F		1										
X79QAW		1										
XCW73B		1										
XLJEG7		1										
Y6P7XY		1										
Y8XCHE		1										
YAXUAE		1	Headspace	-	-	-	-	-	-	-	-	-
		,	GC/MS									
YCB844		<i>v</i>										
YDW3HV		<b>v</b>										
YERLLH		1										
YLUQH9		<b>v</b>										
YMNGNM		1										
YPA9QC		1										
YQ977E		1										
YTFN7V	1	1										
YU6RY3		1										
YXAEXZ		1										
YYGZ6D		1										
ZEAYKE		1										
ZGFDBT		1										
ZJ6LGN		1										
ZKGCUY		1										
ZKZ6KB		1										
ZN29EH		1										
ZU7ZP2		1										
ZVCRBM	1	1										
ZZ8JJJ		1										
Respons	e S	umm	ary									
Participants	_	GC (	GC/MS									
307		39	300									

## Conclusions

WebCode	Conclusions
22KCWY	Exhibits 1 and 2 contained a medium petroleum distillate (MPD), which is an ignitable liquid. Examples of MPDs include some paint thinners and mineral spirits. No ignitable liquids were detected in Exhibit 3.
286DCC	Item 1.1 – Passive Headspace Concentration/Gas Chromatography-Mass Spectrometry disclosed: A medium-heavy petroleum distillate (C8-C15) was identified. Examples of this type include some kerosenes and some charcoal starters. Item 1.2 – Passive Headspace Concentration/Gas Chromatography-Mass Spectrometry disclosed: A medium-heavy petroleum distillate (C8-C15) was identified. Examples of this type include some kerosenes and some charcoal starters. Item 1.3 – Passive Headspace Concentration/Gas Chromatography-Mass Spectrometry disclosed: No ignitable liquids/ignitable liquid residues were identified.
29X79V	A petroleum distillate in the medium range was detected in Items 1 and 2. Examples of petroleum distillates in the medium range include: some charcoal starters, some paint thinners and some dry cleaning solvents. No ignitable liquid residues were detected in Item 3.
2AULKR	I examined the items received and found: a) Item 1 to consist of a piece of carpet material which on analysis, I detected to presence of residue of medium range petroleum distillates where the components are in the range of carbon 8 to carbon 13. b) Item 2 to consist of a piece of carpet material which on analysis, I detected the presence of residue of medium range petroleum distillates where the components are in the range of carbon 8 to carbon 13. c) Item 3 to consist of a piece of carpet material which on analysis, I did not detect any ignitable product.
2DBAWC	A miscellaneous product was identified in specimen #'s 1 & 2. Examples of medium products include some turpentine products, blended products and specialty products. No ignitable liquids were detected in specimen #3 (control). The specimens were extracted using passive concentrated headspace then analyzed by gas chromatography - mass spectrometry.
2DWKVK	Item 1 (carpet sample taken from near the suspected attempted ignition site in the entryway) was found to be a Heavy petroleum distillate. Item 1 was identified as Kerosene. Item 2 (carpet sample taken from near the suspected attempted ignition site in the restroom hallway) was found to be a Heavy petroleum distillate. Item 2 was identified as Kerosene. No ignitable liquid was detected within Item 3.
2E6XE8	A heavy petroleum distillate was identified in Item 1-1-Carpet sample taken from near the suspected attempted ignition site in the entryway and Item 1-2- Carpet sample taken from near the suspected attempted ignition site in the restroom hallway. No ignitable liquids were detected in Item 1-3-Carpet substrate intended as a comparison blank in a Nylon evidence bag. Examples of heavy petroleum distillates include kerosene, diesel fuel and some brands of charcoal starter fluids.
2EQJV4	A medium to heavy petroleum distillate was detected within the contents of Items 1 and 2. Examples of a medium to heavy petroleum distillate are some charcoal starters, some lamp oils, some cleaning products and some paint thinners. No ignitable liquids were identified within the contents of Item 3.
2GAH8D	Items 1A and 1B were analyzed using Gas Chromatography / Mass Spectrometry (GC/MS). These samples contain an ignitable liquid in the medium petroleum distillate class. Some examples of products in the medium petroleum distillate class include some charcoal starters, paint thinners, lamp oils, torch fuels and dry cleaning solvents.
2L6C6E	Item 1: Heavy petroleum distillate, examples of which are fuel oils, diesel fuel, and some brands of charcoal starter fluids. Item 2: Heavy petroleum distillate, examples of which are fuel oils, diesel fuel, and some brands of charcoal starter fluids. Item 3: No ignitable liquids were found. Used in conjunction with Items 1 and 2.
2NUJMQ	Results of Analysis: Items 1, 2 and 3 were extracted by passive adsorption/elution and analyzed by gas chromatography-mass spectrometry. Item 1) A heavy petroleum distillate was identified in the heat-sealed fire debris bag containing the square piece of black, uncharred carpet. Examples of heavy petroleum distillates are kerosene, diesel fuel and some charcoal starters. Item 2) A heavy petroleum distillate was identified in the heat sealed fire debris bag containing the square piece of black, uncharred carpet. Examples of heavy petroleum distillate was identified in the heat sealed fire debris bag containing the square piece of black, uncharred carpet. Examples of heavy petroleum distillates are kerosene, diesel fuel and some

WebCode	Conclusions
	charcoal starters. Item 3) No ignitable liquids were identified
2QXD49	A medium petroleum distillate (MPD) was identified in the contents of Items 1 and 2. Examples of MPD's include some charcoal starters, some lamp oils and some insecticide vehicles. MPD's are ignitable liquids. No ignitable liquid was identified in the comparison sample of Item 3.
2X2F99	Items 1 and 2: The submitted sample was analyzed using a passive headspace technique and gas chromatography/mass spectrometry (GC-MS). A Heavy Petroleum Distillate was identified. Examples of this type ignitable liquid include: kerosene, diesel fuel, some jet fuels and some charcoal starters.
2Z8JGY	Evidence addressed in this report was received into the laboratory on the following date: August 7, 2014. Analysis of Ignitable liquid residues by Diffusive Flammable Liquid Extraction trapping followed by Gas chromatography/Mass Selective Detection: Items #1 and #2: Medium petroleum distillate, examples of which are paint thinners, dry cleaning solvents and some brands of charcoal starter fluid. Item #3: No ignitable liquid residues detected.
32JVH2	" Item 1.1 and 1.2 contained a medium petroleum distillate in the C9-C15 carbon range. Examples of which include some charcoal starters, some paint thinners, and some dry cleaning solvents." "No ignitable liquids were detected in Item 1.3".
3AVU96	Heavy petroleum distillate was detected in the exhibits marked "Item 1" and "Item 2". No ignitable liquid residue was detected in the exhibit marked "Item 3". Note: Examples of heavy petroleum distillates include kerosene, diesel fuel, some jet fuels and some charcoal starters.
3DRKCV	EXHIBIT # - 1, AGENCY # - Item 1, DESCRIPTION: Heat sealed nylon bag containing a heat sealed nylon bag containing a piece of black carpet. Examination reveals the presence of an ignitable liquid residue in the Medium to Heavy Range of the Petroleum Distillates Class. Refer to the attached Ignitable Liquid Classification System. EXHIBIT # - 2, AGENCY # - Item 2, DESCRIPTION: Heat sealed nylon bag containing a heat sealed nylon bag containing a piece of black carpet. Examination reveals the presence of an ignitable liquid residue in the Medium to Heavy Range of the Petroleum Distillates Class. Refer to the attached Ignitable Liquid Classification System. EXHIBIT # - 3, AGENCY # - Item 3, DESCRIPTION: Heat sealed nylon bag containing a heat sealed nylon bag containing a piece of black carpet (comparison sample). No ignitable liquid residue as defined by the attached Ignitable Liquid Classification System was detected.
3EJLA8	Items 1 & 2 were analyzed by GC/MS and determined to contain a medium petroleum distillate ASTM class ignitable liquid. Examples of this ASTM class are some charcoal starters, some paint thinners, some copier toners. Item 3 was analyzed by GC/MS; however; ignitable liquids could not be detected.
3GUEE8	A volatile ignitable liquid was identified in Items 1 and 2. No volatile ignitable liquids were identified in Item 3.
3JVNZA	Five consecutive n-alkanes (C9~C14) and small peaks of n-octane and n- pentadecane were detected in Item 1 & Item 2. So, Item 1 & Item 2 are medium to heavy petroleum distillates.
3KPBX7	MPD: The presence of a 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.
3P6R7B	Item 1 was subjected to adsorption-elution extraction followed by gas chromatographic/mass spectrometric (GC/MS) analysis. GC/MS analysis shows the presence of a heavy petroleum distillate ignitable liquid. Examples of this class of ignitable liquids could include (but are not limited to): Kerosene, diesel fuel, some jet fuels and some charcoal starters. 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 heavy petroleum distillate ignitable liquid. Examples of this class of ignitable liquids could include (but are not limited to): Kerosene, diesel fuel, some jet fuels and some charcoal starters. Item 3 was subjected to: adsorption-elution extraction followed (but are not limited to): Kerosene, diesel fuel, some jet fuels and some charcoal starters. 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. NOTE: 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.

WebCode	Conclusions
3TJMM9	Item 1: n alkanes from C8 until C15. The flammable could be some lamp oils, some paint thinner or mineral spirit. Item 2: n alkanes from C8 until C15. The flammable could be some lamp oils, some paint thinner or mineral spirit.
3UCB8P	A miscellaneous product composed of a mix of a medium aromatic product and a medium petroleum distillate was found on items #1 and #2. No ignitable liquid was found on item #3.
3XFZYX	Analysis by Gas Chromatography/Mass Spectrometry of the carpet samples (Item 1) reveals the presence of a medium to heavy petroleum distillate with a carbon C9 to C14 range. Examples include: some charcoal starters, mineral spirits, some paint thinners, 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 carpet sample (Item 2) reveals the presence of a medium to heavy petroleum distillate in the carbon C9 to C14 range. Examples include: some charcoal starters, mineral spirits, some paint thinners, some torch fuels, some lamp oils, some dry cleaning solvents and some solvents for insecticides and polishes. Analysis by Gas Spectrometry of the carbon C9 to C14 range. Examples include: some charcoal starters, mineral spirits, some paint thinners, 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 carpet comparison sample fails to reveal the presence of any ignitable liquids including methanol, ethanol, isopropanol and acetone.
3YRN9C	Residues of a heavy petroleum distillate (carbon range C9 to C15) were identified on Items 1 and 2. Examples of heavy petroleum distillates include kerosene, diesel fuel, some jet fuels, and some charcoal starters. No ignitable liquid residues were detected on Item 3.
42U4XE	The carpet sample submitted as Item 1 contains residue of an ignitable liquid classified as a medium to heavy petroleum distillate. This petroleum distillate is in the carbon number range of C7 to C15. The carpet sample submitted as Item 2 contains residue of an ignitable liquid classified as a medium to heavy petroleum distillate. This petroleum distillate is in the carbon number range of C7 to C15. Examples of medium to heavy petroleum distillates include some lamp oils and charcoal starters.
43NU4T	These samples were analyzed using GC and GC/MS. Petroleum Distillates products in the medium to heavy range were identified in item 1. Petroleum Distillates products in the medium to heavy range were identified in item 2.
48X6ZU	Items 1 and 2: Heavy petroleum distillate ignitable liquid. Examples of heavy petroleum distillates are kerosene, diesel fuel, some jet fuels, some charcoal starters and some automotive fuel system cleaners and treatments.
4CR4BJ	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 1618-11 Standard Methods as Heavy Petroleum Distillates (Kerosene) (see additional comment). 2)In the sample received and labeled as item 2, it was detected the presence of substances which can be classified in the scheme proposed by the ASTM E 1618-11 Standard Methods as Heavy Petroleum Distillates (Kerosene) (see additional comment). 3) In the sample received and labeled as "Control Bag", it were not detected any mixture which can be classified in the scheme proposed by the ASTM E 1618-11 Standard Method (see additional comment). 4) The heavy petroleum distillates are ignitable 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.
4D84TM	Item #1 is positive for a medium to heavy Miscellaneous petroleum product. Examples include blended products that have both a Distillate and an Aromatic component such as some automotive parts cleaners/products. Item #2 is positive for a medium to heavy Miscellaneous petroleum product. Examples inlcude[sic] blended products that have both a Distillate and an Aromatic component such as some automotive parts cleaners/products.
4DNKMF	Item 1 and Item 2 were found to bear traces of accelerant which was consistent with the presence of medium petroleum distillate.
4HMPPZ	Item 1: The square piece of carpet contains a medium/heavy petroleum distillate ignitable liquid residue. Examples of this type of ignitable liquid can include, but are not limited to, some charcoal starters, paint thinners, dry cleaning solvents, torch fuels, lamp oils, mineral spirits, polishes, insecticide vehicles, kerosene, jet fuels, and some fuel oils. Item 2: The square piece of carpet

contains a medium/heavy petroleum distillate ignitable liquid residue. Examples of this type of

WebCode	Conclusions
	ignitable liquid can include, but are not limited to, some charcoal starters, paint thinners, dry cleaning solvents, torch fuels, lamp oils, mineral spirits, polishes, insecticide vehicles, kerosene, jet fuels, and some fuel oils. Item 3: An ignitable liquid residue was not detected on the square piece of carpet.
4JV4RZ	The analysis performed on Item #1 and #2 enabled the detection of a heavy petroleum distillate (class 4 (kerosene): jet fuel, solvent) in these samples. The analysis on Item #3 did not enable the detection of any flammable substance.
4LFZCJ	Exhibit "A" and "B" contained Medium Miscellaneous as per ASTME 1618-06 classification, which is comparable to the commercial product Turpentine. No commonly known ignitable liquid could be identified in Exhibit "C". ASTME- 1618-06 is the American Society for Testing and Materials Standard Test method for Ignitable Liquid Residues in extracts from Fire Debris samples by GC-MS.
4LYU2Z	Items 001-1 and 001-2 contained medium to heavy (C9-C14) petroleum distillate residues. No common ignitable liquid residues were detected in the black carpet - like material. Item 001-3 (Comparison Blank).
4MAJF7	Items 1 & 2 - Analysis identified the presence of a medium petroleum distillate. Some examples of medium petroleum distillates include: ultra pure liquid candle, some charcoal starters, some paint thinners, and some dry cleaning solvent.
4NP36A	Items 1 and 2 each contain a medium petroleum distillate product. Some examples of a medium petroleum distillate product are some charcoal starters, some paint thinners and some dry cleaning solvents. No ignitable liquids were detected in Item 3. A negative result means that the laboratory did not identify ignitable liquids in the submitted sample.
4P3CFV	A medium to heavy range petroleum distillate was detected in Item 1 and Item 2. Examples of products that contain medium to heavy range petroleum distillates include, but are not limited to, some kerosenes, some fuel treatments, and some paint thinners. No ignitable liquids were detected in Item 3.
4PJQKK	Item 1 contained a medium to heavy petroleum distillate, in the range of C9-C14. Examples of medium to heavy petroleum distillate include some charcoal starters, some paint thinners, some copier toners and some fuel system cleaners. Item 2 contained a medium to heavy petroleum distillate, in the range of C9-C14. Examples of a medium to heavy petroleum distillate include some charcoal starters, some paint thinners, some copier toners, and some fuel systems cleaners. Item 3 examined as a comparison sample for Item 1 and Item 2. Further, no ignitable liquids were detected in Item 3.
4R4JWM	A medium-to-heavy petroleum distillate was detected in the extracts of Items #1 and #2. Examples of medium-to-heavy petroleum distillates include some paint thinners, some charcoal starters and some lamp fuels.
4TDPTN	Trace of ignitable liquid detected in Item 1, that is similar to Petroleum Distillates, subclass Medium to Heavy with carbon number range C8-C14. Trace of ignitable liquid detected in Item 2, that is similar to Petroleum Distillates, subclass Medium to Heavy with carbon number range C8-C14. No trace of ignitable liquid detected in Item 3.
4ZXMLH	No ignitable liquid residues were detected in Item 3. A medium range (C9 - C12) petroleum distillate (de-aromatised) was detected in both Items 1 and 2. Some examples of de-aromatised petroleum distillates are some charcoal starters and some paint thinners.
63G6C2	Item 1 and Item 2 are consistent with heavy petroleum distillate.
68ELT2	Items 1 and 2 were each found to contain a mixture of a medium aromatic product* and a heavy petroleum distillate**. A mixture of a medium aromatic product and a heavy petroleum distillate may also be the result of a blended product. Examples may include, but are not limited to, fuel additives and treatments. Item 3 was used as a control. *Examples include: some automotive parts cleaners, some specialty cleaning solvents, some insecticide vehicles, some fuel additives **Examples include: kerosene, diesel fuel, some jet fuels, some charcoal starters
6C6VYT	A medium petroleum distillate was detected in Item 1. A medium to heavy petroleum distillate with a carbon range of C9 to C14 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

WebCode	Conclusions
	paint thinners and some dry cleaning solvents. Examples of heavy petroleum distillates include, but are not limited to, kerosene, diesel fuel, some jet fuels and some charcoal starters.
6DHPGE	The items (1+2) contains Kerson[sic], which is considerd[sic] as ignitable liquid.
6DZE3F	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 1618-11 Standard Methods as Heavy Petroleum Distillates (kerosene). 2)In the sample received and labeled as item 2, it was detected the presence of substances which can be classified in the scheme proposed by the ASTM E 1618-11 Standard Methods as Heavy Petroleum Distillates (kerosene). 3) In the sample received and labeled as "Control Bag", it were not detected any mixture which can be classified in the scheme proposed by the ASTM E 1618-11 Standard Method (see additional comment). 4) The kerosene is a ignitable 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.
6G2HV3	Exhibits 1 and 2 contained a medium petroleum distillate which is an ignitable liquid. Examples of medium petroleum distillates include some charcoal starters, some mineral spirits, and some paint thinners. No ignitable liquids were detected in Exhibit 3.
6JUBUR	Examination of Items #1 and #2 revealed the presence of a medium - heavy petroleum distillate. Medium - heavy petroleum distillate include some charcoal starters and some paint thinners. Examination of Item #3 failed to reveal the presence of ignitable liquids.
6K4BWE	Item 1 comprised a piece of carpet sealed in a nylon evidence bag. A medium-heavy petroleum distillate was detected from the item. The medium-heavy petroleum distillate consisted of hydrocarbons in the n-alkane range of C9-C15. Commercial examples of similar products include kerosene, heating fuel, jet fuel and lamp oil. Item 2 comprised a piece of carpet sealed in a nylon evidence bag. A medium-heavy petroleum distillate was detected from the item. The medium-heavy petroleum distillate consisted of hydrocarbons in the n-alkane range of C9-C15. Commercial examples of similar products include kerosene, heating fuel, jet fuel and lamp oil. Item 3 comprised a piece of carpet sealed in a nylon evidence bag. No ignitable liquid residues were detected from the item
6KLCR4	Item 1 and Item 2 contains the same ignitable liquid residue: medium petroleum distillates (C7-C14).
6LRWF4	Results of gas chromatography-mass spectrometry analysis (GC-MS, Passive Headspace Concentration): Lab Item #1: A heavy petroleum distillate was identified. Examples of a heavy petroleum distillate include, but are not limited to, kerosene, diesel fuel and some jet fuels. Lab Item #2: A heavy petroleum distillate was identified. Examples of a heavy petroleum distillate include, but are not limited to, kerosene, diesel fuel and some jet fuels. Lab Item #3: No ignitable liquids were identified. (Comparison Sample)
6R6NVW	Item 1 was analyzed for presence of ignitable liquid residues. A Heavy Petroleum Distillate was detected. Examples include K1 Kerosene, some charcoal starters and some fuel treatments. Item 2 was analyzed for presence of ignitable liquid residues. A Heavy Petroleum Distillate was detected. Examples include K1 Kerosene, some charcoal starters and some fuel treatments. Item 3 was a control sample submitted for comparison purposes.
6RHAGR	A Heavy Petroleum Distillate was identified in lab Item 1. A Heavy Petroleum Distillate was identified in lab Item 2. No sample liquids were identified in lab Item 3.
6RK298	Residues of a heavy petroleum distillate (carbon range C9 to C15) were identified on Items 1 and 2. Examples of heavy petroleum distillates include kerosene, diesel fuel, some jet fuels, and some charcoal starters. No ignitable liquid residues were detected on Item 3.
6YLBJ7	Item 1 and Item 2: Contain Petroleum Distillates in the rang[sic] C8-C13.The samples were classified as Medium Petroleum Distillates.
6ZWBFZ	Items 1 and 2 were each found to contain a mixture of a medium aromatic product <sup>*</sup> and a heavy petroleum distillate <sup>**</sup> . A mixture of a medium aromatic product and a heavy petroleum distillate may also be the result of a blended product. Examples may include, but are not limited to, fuel additives and treatments. *Examples include: some automotive parts cleaners, specialty cleaning solvents, some

	IADLL 4
WebCode	Conclusions
	insecticide vehicles, fuel additives **Examples include: kerosene, diesel fuel, some jet fuels, some charcoal starters. Item 3 was used as a control.
76MZKB	A medium petroleum distillate, possibly a fuel additive or similar specialty product, was detected on both Item 1 and Item 2.
7B76BQ	Examination of items #1 and #2 revealed the presence of a medium - heavy petroleum distillate. Medium - heavy petroleum distillates include some charcoal starters and some paint thinners. Examination of item #3 failed to reveal the presence of ignitable liquids.
7JKYLL	In relation to items 1 and 2- an aromatized medium petroleum distillate (MPD) in the range C8-C14 with major peaks in the range C9-C13 found. The results for items 1 and 2 are largely indistinguishable using the available techniques/methods at this laboratory. In relation to item 3-some components were detected but the item was negative for flammable liquid residues. The residues detected in items 1 and 2 are not a function of the carpet substrate.
7TRQVG	Items 1 and 2 were each found to contain a volatile mixture which was identified as a medium petroleum distillate (MPD). Examples of products containing MPDs include some charcoal starters, some paint thinners, and some dry cleaning solvents. No common ignitable liquid residues were detected in item 3.
7VDH3D	[No Conclusions Reported.]
7VHWDT	Items 1 and 2 were analyzed for the presence of ignitable liquid residue and were found to contain Gasoline. Item 3 was submitted for comparison purposes. It was analyzed and no ignitable liquid residue was detected.
82ZPXQ	Test Description and Results: Extraction of the debris was done in accordance with ASTM Standard Practice E1412-12 ^ 1. Application of this technique by Laboratory employs the use of adding an activated charcoal polymer strip to the sample container and heating the resealed container at 65°C for 16 hours (minimum). After allowing the sample to cool to room temperature, the charcoal strip is removed from the sample and split. One half of the charcoal strip is stored and the other half is desorbed with carbon disulfide and analyzed in accordance with ASTM standard E1618-14 ^ 2. ASTM Standard E1618-14 was used to identify ignitable liquid residues present in the samples. This standard employs Gas Chromatography/Mass Spectrometry (GC/MS) to generate chromatograms and mass spectral data for comparison with similar data from known ignitable liquids. Total ion chromatograms and extracted ion profiles are evaluated by visual pattern matching against known reference ignitable liquids. Individual components may be identified by their mass spectral data and retention time. Analysis of the sample gave the following results: Sample #1 - Analysis indicates the presence of a medium to heavy petroleum distillate (C-9 to C-14). Sample #2 - Analysis indicates the presence of a medium to heavy petroleum distillate (C-9 to C-14). Sample #3 - No ignitable liquids were detected. Medium petroleum distillates include but are not limited to some charcoal starters, some paint thinners and some dry cleaning solvents. Heavy petroleum distillates include but are not limited to kerosene, diesel fuel, some jet fuels and some charcoal starters. Conclusions: A medium to heavy petroleum distillates and some charcoal starters. Conclusions: A medium to heavy petroleum distillates include but are not limited to kerosene, diesel fuel, some jet fuels and some charcoal starters. Conclusions: A medium to heavy petroleum distillates include but are not limited to kerosene, diesel fuel, some jet fuels and some charcoal starters. Conclusions: A medium to
83V92D	By means of physical study and chemical analysis: 1.The flammable substance gasoline was detected in Item 1 and Item 2. 2.An ignitable substance within the medium petroleum distillates class was detected in Item 1 and Item 2. Examples of medium petroleum distillates are: some Mineral Spirits, some charcoal starters and some dry cleaning solvents. 3.No ignitable substance was detected in Item

3.
 86VJT7 Residues of a medium petroleum distillate were identified in Item 1 (Range: C9 - C13). Residues of medium petroleum distillate were identified in Item 2. (Range: C8 - C13). Medium petroleum distillates include some mineral spirits, some charcoal lighters, and some solvents. No ignitable liquids

WebCode	Conclusions
	were identified on the Item 3 comparison sample.
8EL4Y6	Item #1 - The presence of a Medium to Heavy Petroleum Distillate was detected. Item #2 - The presence of a Medium to Heavy Petroleum Distillate was detected. Item #3 - No ignitable liquids were detected.
8ET3K3	Traces of a medium petroleum distillate constituents of kerosene, were recovered from Items 1 and 2, the carpet sample taken from near the suspected attempted ignition site in the entryway and the carpet sample taken from near the suspected attempted ignition site in the restroom hallway respectively. Nothing of significance was found with respect to the recovery of flammable liquid(s) from the carpet substrate (Item 3).
8JKBN9	Exhibit #1: Heavy petroleum distillate, examples of which are kerosene, fuel oils, diesel fuels and some brands of charcoal starters. Exhibit #2: Heavy petroleum distillate, examples of which are kerosene, fuel oils, diesel fuels and some brands of charcoal starters. Exhibit #3: No ignitable liquids were found. Used for comparison to Exhibits #1 and #2.
8Q2WPZ	Results and Conclusions by GC/MS and Passive Headspace Extraction. Q1: A Medium to Heavy range (nC8 - nC15) Petroleum Distillate was detected. Examples of Medium to Heavy range Petroleum Distillate includes, but not limited to some kerosenes, some lamp oils, some Automotive Additives and some Charcoal starters. Q2: A Medium to Heavy range (nC8 - nC15) Petroleum Distillate was detected. Examples of Medium to Heavy range Petroleum Distillate includes, but not limited to some Automotive Additives and some Charcoal starters. Q1: A Medium to Heavy range (nC8 - nC15) Petroleum Distillate was detected. Examples of Medium to Heavy range Petroleum Distillate includes, but not limited to some Kerosenes, some Lamp Oils, some Automotive Additives and some Charcoal starters. K1: Comparison sample.
8QJ3QB	A medium petroleum distillate was detected in Items 1 and 2. Medium petroleum distillates include, but are not limited to, some charcoal starters and lamp oils, mineral spirits, some wood treatments and preservatives and numerous other specialty application solvents and thinners. No ignitable liquids were detected in Item 3.
8R999M	On analysis, I found item 1 to bear traces of heavy class petroleum distillates that consistent with kerosene. On analysis: I found item 2 to bear traces of heavy class petroleum distillates that consistent with kerosene.
8RDTWP	Item 1 and Item 2 were detected Petroleum distillates (C8 $\sim$ C15, Medium to heavy). No ignitable liquids were detected in the control bag Item 3.
8VAAB6	Items 1 and 2 were the same C-8 to C-15 medium petroleum distillate. Both samples items were consistent with kerosene or kerosene-based products.
8W4ZGJ	Items 1 and 2 were found to contain a heavy petroleum distillate. Examples may include but are not limited to some fuel injection cleaners and some charcoal starters. Item 3 was found to contain medium to heavy range volatile components that cannot be identified at this time and may be consistent with the material contained in the sample.
8WMP2Y	Items 1, 2 and 3 were analyzed by gas chromatography / mass spectrometry for the presence of ignitable liquids. A medium to heavy range petroleum distillate product was detected in items 1 and 2. Examples include kerosene some charcoal starters, paint thinners and aviation fuels. No ignitable liquids were detected in item 3.
8Z3GP8	An ignitable liquid residue consistent with a medium petroleum distillate was identified in item #001. 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. An ignitable liquid residue consistent with a medium petroleum distillate was identified in item #002. 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 #003
8ZAEB4	A residue of a heavy petroleum distillate was detected in Item 1 and Item 2. Examples of a heavy petroleum distillate are kerosene, diesel fuel, some charcoal starters, some jet fuels, some fuel additives, and some specialty/industrial solvents. No ignitable liquids were detected in item 3. The samples were extracted by passive adsorption-elution techniques and were examined using gas chromatography-mass spectrometry (GC-MS).

WebCode	Conclusions
94ME7B	Items 1, 2 and 3 each consisted of a sealed cryovac bag containing a portion of black carpet material, approximately 5cm x 5cm, heat sealed within a second cryovac bag. The above items were examined for the presence of ignitable liquid residues (ILRs) using passive headspace sampling (adsorption onto activated charcoal and solvent desorption) followed by analysis of the extract using gas chromatography mass spectrometry. Items 1 and 2 were found to contain a medium to heavy petroleum distillate. Medium to heavy petroleum distillates include products such as kerosene, paint thinners and charcoal starters. No common ILR was detected on Item 3. Note: The absence of ILRs in fire debris, clothing and other items does not necessarily indicate that an accelerant was not used. Possible explanations for this absence include: Ignitable liquids were present but in levels too low to be detected; Ignitable liquids were present but evaporated prior to analysis (due to packaging, storage or consumption in the fire), and/or; The item analysed was collected from an area not containing ignitable liquids.
96WT7P	Analysis of Item 1 and Item 2 detected the presence of a heavy petroleum distillate (examples: kerosene, certain fuel addititives[sic], certain lamp oils, etc.). Analysis of Item 3 failed to detect the presence of any ignitable liquids.
9A7RYH	ltem 1 contains a heavy petroleum distillate. Item 2 contains a heavy petroleum distillate. Item 3 was utilized as a comparison.
9CGQYH	Analysis of items 1 and 2 revealed the presence of a heavy petroleum distillate. Products in this range include, but are not limited to: kerosene, diesel fuel, fuel oils No. 1 and 2, Jet-A (aviation) fuel, some charcoal starters, some torch fuels, some paint thinners, some solvents for insecticides and polishes, and some lamp oils. Analysis of item 3 did not reveal the presence of any ignitable liquid residue.
9GUMMT	1. Volatile residues from Exhibits 1 (carpet sample taken from near the suspected attempted ignition site in the entryway), 2 (carpet sample taken from near the suspected attempted ignition site in the restroom hallway), and 3 (comparison carpet) were collected using heated headspace and passive headspace concentration techniques and analyzed using gas chromatography/mass spectrometry for the presence of ignitable liquid residues. 2. A miscellaneous product was identified in the concentrated headspace vapors of Exhibits 1 and 2. Ignitable liquids belonging to this class are commercially available as some blended products and some specialty products. The following should also be noted: a. The miscellaneous product identified was comprised of light and medium range aromatic products and a heavy petroleum distillate. Ignitable liquids belonging to the light range aromatic class are commercially available as some automotive parts cleaners, some paint and varnish removers, and some xylenes- and toluene-based products. Ignitable liquids belonging to the medium range aromatic class are commercially available as some automotive part cleaners, some specialty cleaning solvents, and some fuel additives. Ignitable liquids belonging to the heavy petroleum distillate class are commercially available as the robust. Some jet fuels, and some charcoal starters. b. No conclusions could be reached as to whether the products identified were part of a single source or from multiple sources. 3. No ignitable liquid residues were identified in the concentrated headspace vapors of Exhibit 3. 4. It should be noted that the presence of ignitable liquid residues 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 residues.
9KB268	Item 1: A heavy petroleum distillate was identified. Examples include kerosene, diesel fuel, some charcoal starters and some fuel additives. Item 2: A heavy petroleum distillate was identified. Examples include kerosene, diesel fuel, some charcoal starters and some fuel additives.
9KRXVL	Item 1 and and[sic] Item 2 to bear traces of accelerants which was consistent with the presence of Petroleum Distillates in Medium Subclass.
9LZ8MJ	Exhibit - Description - Results: 01 - Carpet - Medium Petroleum Distillate. 02 - Carpet - Medium Petroleum Distillate. 03 - Carpet - Negative.
9TPH49	Item 1: Volatile components have been identified which originate from a medium petroleum distillate. Item 2: Volatile components have been identified which originate from a medium petroleum distillate.
9VRNCM	A petroleum distillate in the medium range was detected in Items 1 and 2. Examples of petroleum distillates in the medium range include: some dry cleaning solvents, some charcoal starters and some paint thinners. No ignitable liquid residues were detected in Item 3.

WebCode	Conclusions
A9AVMT	A medium petroleum distillate (MPD) was detected in Items 1 and 2. Examples of medium petroleum distillates include some charcoal starters and paint thinners. No ignitable liquid residue was detected in Item 3. The items were analyzed by gas chromatography-mass spectrometry (GC-MS). The sampling process used was adsorption elution passive diffusion (Passive Headspace concentration with Activated Charcoal).
AA6H34	Item 1: Item 1 was subjected to adsorption-elution followed by gas chromatographic/mass spectrometric (GC/MS) analysis. GC/MS analysis shows the presence of a heavy petroleum distillate ignitable liquid. Examples of heavy petroleum distillates include (but are not limited to): kerosene, diesel fuel, some jet fuels and some charcoal starter[sic]. Item 2: Item 2 was subjected to adsorption-elution followed by gas chromatographic/mass spectrometric (GC/MS) analysis. GC/MS analysis shows the presence of a heavy petroleum distillate ignitable liquid. Examples of heavy petroleum distillates include (but are not limited to): kerosene, diesel fuel, some jet fuels and some charcoal starter[sic]. Item 3: Item 3 was subjected to adsorption-elution followed by gas chromatographic/mass. GC/MS analysis shows no evidence of charcoal starter[sic]. Item 3: Item 3 was subjected to adsorption-elution followed by gas chromatographic/mass spectrometric (GC/MS) analysis. GC/MS analysis shows no evidence of ignitable liquids. Note: 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.
AFABF8	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). A heavy petroleum distillate (HPD) was identified in Items 1 and 2 (Identification). Examples of heavy petroleum distillates include: Kerosene, diesel fuel, some jet fuels and some charcoal starter fluids. Explanation of Terms: The following descriptions are meant to provide context to the types of opinions reached in fire debris examinations. Identification: The sample contained an ignitable liquid or residues of an ignitable liquid. [Participant included a full Explanation of Terms that could not be reproduced here.]
AFWJNQ	Items 1 and 2 (exhibits 1 and 2)- A heavy petroleum distillate was detected. Examples of this class of ignitable liquid include kerosene, diesel fuel, some jet fuels and some charcoal starters. Item 3 (exhibit 3)- No ignitable liquid was detected.
AHHAT2	Items 1 and 2 were 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.
AJT86X	Items 1 and 2 were each found to contain a mixture of a medium aromatic product* and a heavy petroleum distillate.** A mixture of a medium aromatic product and a heavy petroleum distillate may also be the result of a blended product. Examples may include, but are not limited to, fuel additives and treatments. Item 3 was used as a control. *Examples include: some automotive parts cleaners, specialty cleaning solvents, some insecticide vehicles, fuel additives **Examples include: kerosene, diesel fuel, some jet fuels, some charcoal starters
AUQ9JM	Examination of items #1 and #2 revealed the presence of a medium - heavy petroleum distillate. Medium - heavy petroleum distillates include some charcoal starters and some paint thinners. Examination of item #3 failed to reveal the presence of ignitable liquids.
AURZGU	Items 1-2 were each analyzed and determined to contain a heavy petroleum distillate. Examples of heavy petroleum distillates include, but are not limited to, kerosene, diesel fuel, some jet fuels, some charcoal starters, and some wood treatment products. This conclusion is based upon gas chromatography - mass spectrometry (GC-MS) analysis of concentrated headspace vapors from the sample.
AUT3XL	These samples were analyzed using GC and GC/MS. Petroleum distillates in the medium to heavy range (C8~C15) were identified in both item 1 and 2.
AWH9GX	Results/Opinions/Interpretations of Fire Debris Analysis: Item #1 & #2 - The volatile contents were recovered using a 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 a heated headspace recovery method and analyzed by gas chromatography,

WebCode	Conclusions
	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.
AZ24JQ	Item 1 and Item 2 were found to be positive for residues of a medium petroleum distillate. Sample /Item 3, intended as comparison blank, was found to be negative for presence of an ignitable liquid.
B4H2DY	A heavy petroleum distillate product was detected in the carpet sample from near the suspected attempted ignition site in the entryway (Item One). A heavy petroleum distillate product was detected in the carpet sample taken from near the suspected ignition site in the restroom hallway (Item Two). Heavy petroleum distillate products similar to that detected in these two samples include kerosene, charcoal lighters and heating fuels.
B4VFW2	Upon analysis, I found that Item 1 and 2 to bear traces of flammable residue, which was consistent with heavy petroleum distillate.
B92BCV	Ignitable liquid residue analysis was requested on the following items: Item 1 Carpet sample taken from near the suspected attempted ignition site in the entryway. Item 2 Carpet sample taken from near the suspected attempted ignition site in the restroom hallway. Analysis Result: A medium petroleum distillate was detected in the carpet samples of items 1 and 2. Examples of a medium petroleum distillate include some paint thinners and some charcoal starters. Item 3 Carpet substrate intended as a comparison blank in a Nylon evidence bag. Analysis Result: No ignitable liquids were detected in the carpet sample of item 3. Analysis was performed using gas chromatography with mass spectrometry.
BHWAAV	The carpet samples from the entryway (item 1), restroom hallway (item 2), and the carpet comparison blank (item 3) were sampled for the presence of ignitable liquid residues using passive headspace concentration with activated charcoal. These sample extracts were analyzed by gas chromatography/mass spectrometry (GC/MS) for the presence of ignitable liquid residues. Ignitable liquid residues classified under the ASTM classification scheme as "Petroleum Distillates" (medium to heavy range (C8 - C15)) were detected in the sample extracts from items 1 and 2. Examples of products in this range include kerosene, diesel fuel, some jet fuels, some charcoal starters, and some dry cleaning solvents. Ignitable liquid residues were not detected in the sample extract from the comparison blank (item 3).
BMPDYT	A heavy petroleum product (HPP) was identified in Item 1 and in Item 2. Examples of HPPs include, but are not limited to, kerosene, fuel oils, charcoal starters, and some specialty fuels. No ignitable liquid residues were detected in Item 3. Activated charcoal strips were used to collect volatile organic compounds for Items 1, 2, and 3 with an adsorption/elution technique. The compounds were then analyzed with a gas chromatograph/mass spectrometer (GC/MS). The charcoal strips used are contained in plastic vials and have each been repackaged inside the original item. Chemical Analysis performed includes: Gas Chromatography/Mass spectrometry (GC/MS).
BNJW62	Items #1 and #2 contain a heavy petroleum distillate product. Some examples of a heavy petroleum distillate product are kerosene, diesel fuel and some charcoal starters.
BRFKJM	Items 1-3 were analyzed using Gas Chromatography Mass Spectrometry. A petroleum distillate in the heavy range (HPD) was detected in Items 1 and 2. Examples of an HPD include kerosene and some lamp oils. Ignitable liquids were not detected in Item 3.
BTYCT8	An ignitable liquid, identified as medium petroleum distillate, was detected in item 1 and in item 2. Some examples of products that may contain such medium petroleum distillate are, but are not limited to, some mineral spirits, some paint thinners, some charcoal lighters or some wood treatments and preservatives.
C68LJU	Medium - to Heavy Petroleum Distillate residues were detected in Items 001-1 and 001-2.
C7XT27	Items 1 and 2 were found to contain medium petroleum distillate class ignitable liquid residues. Item 3 was found not to contain any detectable ignitable liquid residues. Examples of medium petroleum distillate products include some formulations of the following: white spirits, kerosene, low odour/mineral turpentine, charcoal starters, firelighters, lamp oils, the carrier solvent in 2-stroke oils, paint thinners, solvents in paints, dry cleaning solvents and lubricants.

WebCode	Conclusions
CGCWZP	Items 1 and 2 were analyzed by GC/MS 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 GC/MS; however ignitable liquids could not be detected.
СЈ6КК7	1. A medium petroleum distillate was detected in Exhibits 1 and 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. 2. No ignitable liquid, or its residue, was detected in Exhibit 3.
CM42TT	Items #1 and #2: The volatile contents were recovered using a 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 was analyzed as a comparison sample.
CN28HZ	Item #1) The item tested positive for the presence of a Medium to Heavy petroleum Distillate. Items in this classification include but is not limited to; some paint thinners, some dry cleaning solvents & some charcoal starters. Item #2) The item tested positive for the presence of a Medium to Heavy petroleum distillate. Items in this classification include but is not limited to; some paint thinners, some dry cleaning solvents & some charcoal starters. Item #3) No ignitable liquid detected.
CNEY9W	Item 1 and item 2 contain medium petroleum distillates products (with aromatized compounds) which can be found in some charcoal staters[sic], some paint thinners and some dry cleaning solvents. Detailled[sic] analysis revealed no significant difference between the two products, a common origin can not be excluded. Item 3: no accelerant product. This sample was given as analytical blank.
СР9РЕВ	Conclusions Items 1 and 2 were found to contain a volatile mixture identified as a medium petroleum distillate. Examples of products containing medium petroleum distillate products include some paint thinners, some charcoal lighters and some organic solvents. No common ignitable liquids were detected in item 3.
CWAWZ6	Both Items 1 & 2 are a similar Medium Petroleum Distillate (MPD). Item 3 did not contain any flammable/combustible product (Control Blank). MPD in Items 1 & 2 were between C8 - C13, and probably corresponded to a specialty product, such as a fuel injector cleaner, a fire/charcoal starter, or a similar kerosene type liquid.
CZR73B	Both Item 1 and Item 2 seemed to have contained Miscellaneous products which can either be paint removers or terpene products.
D7ATD8	Comparison of the provided carpet samples with the carpet substrate revealed the presence of medium petroleum distillates showing a carbon range from octane to tri- and tetradecane in a typical petroleum distillates pattern for both samples.
D84KJL	Sample #1: Analysis indicates the presence of a medium petroleum distillate. Sample #2: Analysis indicates the presence of a heavy petroleum distillate.
D8JYQV	A heavy petroleum distillate (HPD), which is an ignitable liquid, was detected in Item 1 and Item 2. Examples of an HPD include some brands fuel additives, kerosene, jet fuel, some insecticide vehicles and diesel fuel. No ignitable liquids were detected in Item 3.
D9Y3M9	By means of physical study and chemical analysis: 1) A flammable/ combustible substance was detected in Items 1 and 2 within the classification of medium petroleum distillates. This classification includes some dry cleaning solvents, some paint thinners and some charcoal starters. 2) The flammable substance gasoline was detected also in Items 1 and 2. 3) No ignitable liquid was detected in Item 3.
DCFMB9	A petroleum distillate in the heavy range was identified in Item #1 and Item #2. Examples of this include kerosene, diesel fuel, and some charcoal starters. There were no ignitable liquids identified in Item #3.
DJYNT8	Items #1 and #2 contained an ignitable liquid residue identified as a medium- range petroleum distillate (MPD). Commercially available products that may contain an MPD include, but are not limited to, some paint thinners and some charcoal lighter fluids. Item #3 was evaluated as a comparison sample. Ignitable liquid residues were not identified in this exhibit.



WebCode	Conclusions
	Samples by Gas Chromatography - Mass Spectrometry and/or the laboratory's internal policy and procedures.
ERB6YL	Items 1 and 2 (Exhibits 1, 2)- A heavy petroleum distillate was detected. Examples of which include kerosene, diesel fuel, some jet fuels and some charcoal starters. Item 3 (Exhibit 3)- No ignitable liquid or residue was detected. Caprolactum was identifed[sic].
EWKDAN	Instrumental analysis of item 1 and item 2 revealed the presence of a heavy petroleum distillate, examples of which include some fuel additive/treatment products and some charcoal starter fluids. Instrumental analysis of item 3 did not reveal the presence of ignitable liquids. Item 3 was submitted as a carpet comparison sample.
F2AGCR	The exhibits marked "Item 1" and "Item 2" were analysed for the presence of ignitable liquid residues and heavy petroleum distillate was detected. Note: Examples of heavy petroleum distillates include kerosene, diesel fuel, some jet fuels and some charcoal starters.
F76BAT	Item 1 and 2 contain a medium petroleum destillate[sic] not present in control sample (item3).
F8JKHT	The analysis of items 01 and 02 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 identified is further classified as a medium-heavy range product.
F8X66B	1. A medium to heavy 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. Examples of heavy petroleum distillates include, but are not limited to, kerosene, diesel fuel, some jet fuels, and some charcoal starters. 2. A medium to heavy 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. Examples of heavy petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Examples of heavy petroleum distillates include, but are not limited to, kerosene, diesel fuel, some jet fuels, and some charcoal starters. 3. No ignitable liquids found.
F9TKJU	Gas chromatography analysis (GC-MSD, passive headspace and heated headspace concentration) was performed and yielded the following results and conclusions: Items #01 & 02: A medium to heavy petroleum distillate was detected. Examples of some medium to heavy petroleum distillates of the type detected include some paint thinners, some charcoal starters and some specialty solvents. Item #03 - An ignitable liquid residue was not identified.
FBJQXY	The samples were analyzed by gas chromatography-mass spectrometry for presence of ignitable liquids. Item #1: Instrumental analysis detected the presence of a medium petroleum distillate. Examples include but are not limited to some charcoal starters and some paint thinners. Item #2: Instrumental analysis detected the presence of a medium petroleum distillate. Examples include but are not limited to some charcoal starters and some paint thinners. Item #3: No ignitable liquids were detected in the sample.
FCDEFU	Items 1 and 2 each contained a medium petroleum distillate (MPD). Examples of medium petroleum distillates include some charcoal starters, some paint thinners and some dry cleaning solvents. Medium petroleum distillates are ignitable liquids. No ignitable liquids were identified in Item 3.
FJAENV	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 a heavy petroleum distillate. Examples of heavy petroleum distillates include (but are not limited to): kerosene, diesel fuel, some jet fuels, and some charcoal starters. 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 heavy petroleum distillate. Examples of heavy petroleum distillates include (but are not limited to): kerosene, diesel fuel, some jet fuels, and some charcoal starters. Item 3: Item 3 was subjected to adsorption-elution extraction followed by gas chromatographic / mass spectrometric (GC/MS) analysis. GC/MS analysis shows the presence of a heavy petroleum distillate. Examples of heavy petroleum distillates include (but are not limited to): kerosene, diesel fuel, some jet fuels, and some charcoal starters. Item 3: Item 3 was subjected to adsorption-elution extraction followed by gas chromatographic / mass spectrometic[sic] (GC/MS) analysis. GC/MS analysis shows no evidence of ignitable liquids. Note: 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.
FP3CJD	A medium-to-heavy distillate was detected in the extracts of Items #1 and #2. Examples of medium-to-heavy petroleum distillates include some paint thinners, some charcoal starters and some

WebCode	Conclusions
	lamp fuels. No ignitable liquids were detected in the extract of Item #3.
FPJQP3	Items 1 & 2: A heavy petroleum distillate was identified. Heavy petroleum distillates are ignitable liquids and examples include, but are not limited to, kerosene, diesel fuel, some jet fuels, and charcoal starters. Item 3: No ignitable liquid was identified.
FWZYJQ	A Medium Petroleum Distillate was detected in Items 1 & 2. Examples of medium petroleum distillates include some charcoal starters, some paint thinners and some dry cleaning solvents. No Ignitable Liquid Residues were identified in Item 3 ("comparison blank").
FZYKZV	A gas chromatography/mass spectrometry (GC/MS) analysis was performed on the extracts of sample #'s 1 & 2. Analysis results indicate the presence of a heavy petroleum distillate in sample #'s 1 & 2. The heavy petroleum distillate detected in sample #'s 1 & 2 could be kerosene, diesel fuel, some charcoal starters or some jet fuels.
G33MCH	Item 1: Analysis conducted on the mentioned evidence revealed the presence of a Medium Petroleum Distillate; examples include some charcoal starters, some paint thinners and some dry cleaning solvents. Item 2: Analysis conducted on the mentioned evidence revealed the presence of a Medium to Heavy Petroleum Distillate; examples include some charcoal starters, kerosene, some paint thinners and some dry cleaning solvents. Item 3: Control black carpet square - No ignitable liquid detected.
G6TUUU	The results of the examination extremly[sic] strongly support that Item 1 and Item 2 contains ignitable liquid (Level +4), our opinion is that the type is a Petroleum Distillates such as kerosene, mineral spirit.
GAK3WE	Examination of Items #1 and #2 revealed the presence of a medium - heavy petroleum distillate. Medium - heavy petroleum distillates include some charcoal starters and some paint thinners. Examination of Item #3 failed to reveal the presence of accelerants.
GC7RE7	As a result of my examination I determined the following: 6.1 the residue characteristic of Medium Petroleum Distillates(according to ASTM E1618, ignitable liquid classification scheme by GC-MS) was identified in exhibit material marked i.a "Item 1" and 6.2 the residue characteristic of Medium Petroleum Distillates(according to ASTM E1618, ignitable liquid classification scheme by GC-MS) was identified in exhibit material marked i.a "Item 2".
GQA4VR	The carpet from the entryway (Item 1) and the carpet from the restroom hallway (Item 2) contain an ignitable liquid residue classified as a medium petroleum distillate. The carpet substrate (Item 3) was submitted as a comparison sample and no ignitable liquid residue was detected.
GZWAKH	Item 1 consists of a black carpet cutting and was found to contain a medium heavy petroleum distillate. Item 2 consists of a black carpet cutting and was found to contain a medium heavy petroleum distillate. Item 3 (comparison) consists of a black carpet cutting. No ignitable liquids were identified in this item.
H4CUDP	1. GC/MS analysis of submissions #01 and #02 revealed the presence of a medium boiling range petroleum distillate. 2. GC/MS of submission #03 failed to reveal the presence of a flammable liquid.
H6HJA8	A heavy petroleum distillate was identified in Items 1 and 2. Heavy petroleum distillates include, but are not limited to kerosene, diesel fuel, some jet fuels, and some brands of charcoal starters. The activated charcoal strips prepared during the analysis of Items 1 and 2 were packaged for return in Items 1 and 2, respectively. 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 positive identification. C. An uncommon ignitable liquid was present. The activated charcoal strip prepared during the analysis of item 3 was packaged for return in Item 3.
H7278P	The analysis performed on item #1 and item #2 in our laboratory enabled the detection of a heavy petroleum distillate (ex: kerosene, some paint thinner) in these samples. The analysis performed on item #3 did not enable the detection of any flammable substance.
H7HFZP	1. GC/MS analysis of submissions #01 and #02 revealed the presence of a medium boiling range petroleum distillate. 2. GC/MS analysis of submission #03 failed to reveal the presence of a flammable liquid.
HA2ECY	Medium Petroleum Distillate includes among others: some cleaning solvents, some paint thinners,

WebCode	Conclusions
	some charcoal starters or some carburetor cleaners.
HERWNP	A heavy petroleum distillate was detected in Items 1 and 2. Examples of heavy petroleum distillates include (but not limited to) Kerosene and some specialty solvents. No ignitable liquids were detected in Item 3.
HFMGDA	Item 1 - Examination of Item #1 reveals the presence of a medium-heavy petroleum distillate. Medium-heavy petroleum distillates include some charcoal starters and some paint thinners. Item 2 - Examination of Item #2 reveals the presence of a medium-heavy petroleum distillate. Medium-heavy petroleum distillates include some charcoal starters and some paint thinners.
HGHWP8	[No Conclusions Reported.]
HPTCDU	Items #1 and #2 each contain a medium petroleum distillate product. Some examples of a medium petroleum distillate product are some charcoal starters, some paint thinners and some dry cleaning solvents. No ignitable liquids were detected in Item #3. A negative result means that the laboratory did not identify ignitable liquids in the submitted sample.
HRW8XW	Item 1A and 1B were analyzed utilizing gas chromatography/mass spectrometry. These samples contains an ignitable liquid in the medium petroleum distillate class. Some examples of products in the medium petroleum distillate class include some charcoal starters, paint thinners, lamp oils, torch fuels and dry cleaning solvents.
HTC93K	Items 1 & 2: These items consist of black carpet squares and were found to contain a medium to heavy petroleum distillate. Item 3: This item consists of a black carpet square. No ignitable liquids were identified in this item. These items were processed using passive headspace concentration with activated charcoal strips and analyzed using a gas chromatograph / mass spectrometer. Examples of a medium to heavy petroleum distillate may include but are not limited to some charcoal starters, some paint thinners and some fuel treatments.
HW86M6	GC/MS (gas chromatography/mass spectrometry) analysis of concentrated headspace vapors from item #1 - 14-536-Item 1 revealed the presence of compounds having retention times and selected ion profiles characteristic of components of a heavy petroleum distillate. Kerosene, diesel fuel, some jet fuels and some charcoal starters are examples of heavy petroleum distillates. GC/MS (gas chromatography/mass spectrometry) analysis of concentrated headspace vapors from item #2 - 14-536-Item 2 revealed the presence of compounds having retention times and selected ion profiles characteristic of components of a heavy petroleum distillate. Kerosene, diesel fuel, some jet fuels and some charcoal starters are examples of heavy petroleum distillates. GC/MS (gas chromatography/mass spectrometry) analysis of concentrated headspace vapors from item #3 - 14-536-Item 3 revealed the presence of compounds having retention times and mass ions characteristic of matrix components and/or pyrolysis products.
HWVJYN	A petroleum distillate in the medium range was detected in Items 1 and 2.
J3UAY7	Items 1, 2 and 3 were examined for hydrocarbon fire accelerants e.g. petrol, white spirit, paraffin oil, diesel oil. Items 1 and 2 were each found to contain a partly evaporated medium petroleum distillate, of which white spirit and paraffin oil are members. No such hydrocarbon fire accelerants were detected in item 3.
J6VHXN	Item #1 and #2 - The volatile contents were recovered using a 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 a 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.
J93TXY	Items 1.1 and 1.2: A medium to heavy petroleum distillate was identified. Medium to heavy petroleum distillates are ignitable liquids and include, but not limited to, some fuel additives/injector cleaners and some kerosenes. Item 1.3 No ignitable liquid was identified.
JAVHML	Items 1 and 2 contained an ignitable liquid classified as a heavy petroleum distillate. Some examples

WebCode	Conclusions
	of heavy petroleum distillates include, but are not limited to, some kerosene and some engine cleaners. No recognizable ignitable liquids were identified in Item 3.
JGDX94	Items 1 and 2 contain a medium petroleum distillate. Examples of medium petroleum distillates include some charcoal starters, some fuel additives, some paint thinners and some specialty solvents. No ignitable liquids were identified in item 3, the comparison blank.
JKBHRT	No ignitable liquid was detected on carpet substrate intended as comparison blank (Item 3). On the carpet sample taken from near the suspected attempted ignition site in the entry way (Item 1) heavy petroleum distillate (Kerosene) was detected. The same ignitable liquid was also detected on the carpet sample taken from near suspected attempted ignition site in the restroom hallway (Item 2). This strongly support that kerosene was used for the ignition of the fire.
JND8LN	A medium petroleum distillate residue was identified in Item 1, the unburned carpet sample collected from near the entryway. A medium petroleum distillate residue was also identified in Item 2, the unburned carpet sample collected from near the restroom hallway. No ignitable liquid residues were detected in Item 3, the unburned carpet sample submitted as a comparison sample. Examples of medium petroleum distillate products include but are not limited to the following: some charcoal starters, some paint thinners, and some dry cleaning solvents. Please submit any suspected ignitable liquids that may be collected for evaluation and comparison to the residues that were identified in Items 1 and 2.
JP7AZQ	Items 1 and 2 were 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 paint thinners. Item 3 was analyzed by gas chromatography/mass spectrometry; however; ignitable liquids could not be detected.
JTPH9Q	Item 1: It detects mainly n-alkanes in the range of octane to tridecane (C8- C13), less abundant cycloparaffins and aromatics (alkyl benzenes) and small amounts of naphthalenes. The chromatographic pattern obtained is compatible with medium petroleum distillates. Item 1: It detects mainly n-alkanes in the range of octane to tridecane (C8- C13), less abundant cycloparaffins and aromatics (alkyl benzenes) and small amounts of naphthalenes. The chromatographic pattern obtained is compatible with medium petroleum distillates and aromatics (alkyl benzenes) and small amounts of naphthalenes. The chromatographic pattern obtained is compatible with medium petroleum distillates.
JVWKGF	Evidence addressed in this report was received into the laboratory on August 7, 2014. Analysis for ignitable liquid residues using Diffusive Flammable Liquid Extraction trapping, followed by Gas Chromatography/Mass Selective Detection. Items #1 and #2: Medium Petroleum Distillate, examples of which are paint thinners, dry cleaning solvents, and some brands of charcoal starter fluid. Item #3: No Ignitable Liquid Residues detected.
JW6X/M	Items 1 and 2 contained series of n-alkanes in a Gaussian distribution of peaks (from C8 to C14). Isoparaffinic and cycloalkanes were also present (less abundant then n-alkanes). Simple aromatic compounds (C1 - C4 alkylbenzenes) were present in smaller amounts than aliphatic compounds, naphthalenes and alkylindanes were present in traces. Analyses results show that the carpet samples taken from near the suspected attempted ignition sites (items 1 and 2) contained traces of medium (to heavy) ignitable petroleum distillate (e.g. mineral spirit). Examples of this distillate include some charcoal starters, some paint thinners, some dry cleaning solvents or similar product.
JYETNF	1. Volatile residues from Exhibits 1 (carpet sample taken from near the suspected attempted ignition site in the restroom hallway), 2 (carpet sample taken from near the suspected attempted ignition site in the restroom hallway), and 3 (carpet substrate intended as a comparison blank in a Nylon evidence bag) 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. 2. A miscellaneous product was identified in the concentrated headspace vapors from Exhibits 1 and 2 consisting of a heavy petroleum distillate (HPD), light and medium range aromatic products. It is not possible to determine if these residues detected are a mixture of different sources or if they are from a uniquely blended product or a specialty product. Examples of commercial products within the different ignitable liquid classifications are as follows: a. A heavy petroleum distillate (HPD) would include kerosene, aviation fuels, and diesel fuel. b. A light range aromatic product would include some automotive parts cleaners, some paint and varnish removers, and some xylenes- and/or toluene- based products. c. A medium range aromatic product would include some automotive parts

WebCode	Conclusions
	cleaners, some fuel additives, and some specialty cleaning solvents. 3. No ignitable liquid residues were detected in the concentrated headspace vapors from Exhibit 3. 4. It should be noted that the presence of ignitable liquid residues 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 residues.
K3BNZN	A medium petroleum distillate was identified in Items 1-1 and 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 Item 1-3.
K4MDAR	Item 1 & 2: Ignitable liquid residues containing a heavy petroleum distillate and aromatic blended product. Blended products in this range include, but are not limited to, some types of kerosene, some types of automotive fuel additives & treatments, some types of fuel injection and carburetor cleaners, and some types of octane boosters. In blended products, the dominate aromatic compound is equal to or greater than 50% of the dominant n-alkane compound. Item 1: 1, 2, 4 trimethylbenzene to Dodecane (105/57) = 94.5%. Item 2: 1, 2, 4 trimethylbenzene to Dodecane (105/57) = 92.3%. Item #3: No ignitable liquid residues were detected.
K8MYQW	Item 1: It shows a Gaussian distribution of N-Alkanes in the range C-8 to C-17 (with isoparaffinic compounds). Also observed the presence (less abundant than alkanes) of Cycloalkanes, Aromatics and condensed Ring Aromatics. So, it could be remmants[sic] of Medium to Heavy Petroleum Distillates (like some charcoal starters). Item 2: It shows a similar result of Item 1, a Gaussian distribution of N-Alkanes in the range C-8 to C-17 (with isoparaffinic compounds). Also observed the presence (less abundant than alkanes) of Cycloalkanes, Aromatics and condensed Ring Aromatics. So, it could be remmants[sic] of Medium to Heavy Petroleum Distillates (like some charcoal starters).
К9С6А9	On analysis, I found the presence of petroleum distillates on the carpet sample taken from near the suspected attempted ignition site in the entryway 'Item 1' and on the carpet sample taken from near the suspected attempted ignition site in the restroom hallway 'Item 2'.
K9FPWB	A heavy petroleum distillate was identified in Items 1 and 2. Examples of materials in this class include kerosene, diesel fuel and some charcoal starters. No ignitable liquids were identified in Item 3. Samples of recovered materials from this case have been preserved with the evidence.
K9UDZN	Exhibits 1 and 2 contained a heavy petroleum distillate (HPD), which is an ignitable liquid. Examples of HPDs include kerosene, diesel fuel, some paint thinners, and some lamp oils. No ignitable liquids were identified in Exhibit 3.
KE3FLR	Item 1 Carpet sample taken from near the suspected attempted ignition site in the entryway, was found to contain Medium Petroleum Distillate. Item 2, Carpet sample taken from near the suspected attempted ignition site in the restroom hallway, was also found to contain Medium Petroleum Distillate. Examples of these Medium Petroleum Distillates include but are not limited to Some Charcoal Starters, Some Paint Thinners and Some Dry Cleaning Solvents. No ignitable liquids were detected in Item 3, a Carpet substrate intended as a comparison blank.
KMFGQT	Item #1 and Item #2 each contained residue consistent with the medium petroleum distillate class of ignitable liquids. Some examples of this class are mineral spirits, some paint thinners, some charcoal starters, dry cleaning solvents, some torch fuels, some solvents for insecticides and polishes, and some lamp oils. No ignitable liquid residues were detected in Item #3.
L3KE34	Item 1: positive for ignitable liquids. ASTM E1618 classification is "petroleum distillates" in sub-class medium-heavy. Item 2: positive for ignitable liquids. ASTMS E1618 classification is "petroleum distillates" in sub-class medium-heavy.
L78PNN	A volatile ignitable liquid (medium petroleum distillate) was identified in Items 1 and 2. Volatile ignitable liquids were not identified in Item 3.
LCBQNH	Items 1 and 2 contained a medium petroleum distillate product. Examples of medium petroleum distillate products include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents.
LCCT7A	Item #1: A heavy petroleum distillate was detected. Examples of heavy petroleum distillates include kerosene, diesel fuel, and some fuel treatments. Item #2: A heavy petroleum distillate was detected. Examples of heavy petroleum distillates include kerosene, diesel fuel, and some fuel treatments. Item

WebCode	Conclusions
	#3 (Comparison): Ignitable liquid residues were not detected. Items #1, #2, and #3 were analyzed by Passive Adsorption/Elution Extraction/Gas Chromatography - Mass Spectrometry (GC-MS).
LCULZR	Item 1-Heavy Petroleum Distillate was identified, example of which includes kerosene and #2 fuel oil. Item 2-Heavy Petroleum Distillate was identified, example of which includes kerosene and #2 fuel oil. Item 3-No ignitable liquid was detected.
LD4T3K	WE DETECT IN ITEM 1 A HEAVY PETROLEUM DISTILLATE. WE DETECT IN ITEM 2 A HEAVY PETROLEUM DISTILLATE.
LG4ZNH	Q1 consisted of double packaged and sealed nylon evidence bags with the inner bag containing a section of black carpet. GC/MS analysis of specimen Q1 disclosed the presence of a Medium to Heavy Petroleum Distillate (C8-C15). Examples of a Medium to Heavy Petroleum Distillate include, but are not limited to, some fuel additives, and charcoal starters. Q2 consisted of double packaged and sealed nylon evidence bags with the inner bag containing a section of black carpet. GC/MS analysis of specimen Q2 disclosed the presence of a Medium to Heavy Petroleum Distillate (C8-C15). Examples of a Medium to Heavy Petroleum Distillate (C8-C15). Examples of a Medium to Heavy Petroleum Distillate (C8-C15).
lG6WWT	i- Carpet sample taken from the entryway ("Item 1") to bear residues of ignitable liquid which could fall into class of Petroleum Distillates (subclass: Medium) ii- Carpet sample taken from the restroom hallway ("Item 2") to bear residues of ignitable liquid which could fall into class of Petroleum Distillates (subclass: Medium)
LHYKFN	Items 1 and 2 contained a medium petroleum distillate (MPD). Examples of MPD's include some charcoal starters, mineral spirits, some paint thinners, and some automotive treatments. MPD's are ignitable liquids. No ignitable liquid was identified in Item 3.
LJU769	On examination and analysis, I found Item 1 and Item 2 to contain medium class of petroleum distillates. Examples of medium class petroleum distillates are some charcoal starters, some paint thinners and some dry cleaning solvents.
LKNP9V	A medium petroleum distillate was detected in Items 1 and 2. Medium petroleum distillates include, but are not limited to, some charcoal starters, lamp oils, paint thinners, mineral spirits, wood treatments and preservatives and other specialty application solvents and thinners. No ignitable liquids were detected in Item 3.
LLHFEA	(2) + (1) Heavy petroleum products found. Examples include: diesel fuel, kerosene, and some lamp oils.
LTXDNE	The above items were examined in accordance with standard [State] Laboratory methods and procedures based upon ASTM International guidelines. The samples were extracted using passive headspace sampling and analyzed via gas chromatography – mass spectrometry. Items 1 and 2: An ignitable liquid residue was detected – a medium petroleum distillate (MPD). Medium petroleum distillates can originate from some charcoal starters, some paint thinners, and some dry cleaning solvents, as well as some wood staining products, insecticides, and automotive parts cleaners. Item 3: No ignitable liquid residues were detected. Item 3 was submitted as a comparison sample to Items 1 and 2.
LUQ8M4	Gas Chromatography Mass Spectrometry: A heavy petroleum distillate (HPD) was detected in Items 1 and 2. Examples of an HPD include kerosene and some charcoal starters. No ignitable liquids were detected in Item 3.
LZH89R	An ignitable liquid classified as a heavy petroleum distillate was identified in Items 1 and 2. Examples of products that contain heavy petroleum distillates include, but are not limited to, some jet fuels and some fuel additives. No recognizable ignitable liquid was identified in Item 3.
LZYLBU	The following results were obtained: Item 1.1: Medium/heavy petroleum distillate identified. Item 1.2: Medium/heavy petroleum distillate identified. Item 1.3: No common ignitable liquid identified. Control: No common ignitable liquid identified. Note: Examples of a medium-heavy distalle[sic] product include: kerosene, paint thinners, some lamp oils and some BBQ lighter fluids.
M4EHB6	Item 1. A heavy petroleum distillate was identified in the plastic bag containing a piece of carpet. Item 2. A heavy petroleum distillate was identified in the plastic bag containing a piece of carpet. Item 3.

WebCode	Conclusions
	No ignitable liquids were identified in the plastic bag containing a piece of carpet. (Control) Examples of heavy petroleum distillates are kerosene, diesel fuel, and some charcoal starters.
M8XDDW	The volatile contents of Items 1 - 3 were extracted using a passive carbon absorption/elution technique and analyzed by gas chromatography - mass spectrometry (GC-MS). A heavy petroleum distillate was identified in Items 1 & 2. Examples include, but are not limited to, kerosene, some jet fuels and some charcoal starters. No ignitable liquid residues were identified in Item 3.
MCPH9L	A medium- to heavy-range ignitable liquid was detected in Items 1 and 2. It is not possible to determine if the ignitable liquid in these items is a mixture of both medium- and heavy-range products or is a single blended/specialty product. Examples of medium-renage[sic] ignitable liquids include, but are not limited to, paint thinners, charcoal starter fluids and cleaning solvents; examples of heavy-range ignitable liquids include, but are not limited to, diesel fuel, kerosene and some jet fuels.
MPVV4R	Items 1A, 1B Samples contain an ignitable liquid in the medium petroleum distillate class. Some examples of products in the medium petroleum distillate class include some charcoal starters, paint thinners, lamp oils, torch fuels and dry cleaning solvents. Item 1C 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.
MRK2L4	Analysis of Items 1 and 2 revealed the presence of a heavy petroleum distillate. Products in this range include, but are not limited to: kerosene, diesel fuel, fuel oils No. 1 and 2, Jet-A (aviation) fuel, some charcoal starters, some torch fuels, some paint thinners, some solvents for insecticides and polishes, and some lamp oils. Analysis of Item 3 did not reveal the presence of any ignitable liquid residue.
MV2CWL	Exhibits 1 and 2 contained a heavy petroleum distillate (HPD), which is an ignitable liquid. Examples of HPDs include diesel fuel, kerosene, some charcoal starters, and some paint thinners. No ignitable liquids were identified in Exhibit 3.
N2PBRT	Item 1 - Heavy petroleum distillate, examples of which are kerosene, diesel fuel, fuel oil and some charcoal starter fluids. Item 2 - Heavy petroleum distillate, examples of which are kerosene, diesel fuel, fuel oil and some charcoal starter fluids.
NAGRGX	Items A1-1 and A1-2 were found to contain materials consistent with the composition of a "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 purpose.
NBC8UU	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). Medium petroleum distillate was identified in Items 1 and 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).
NC4D7E	Item 1: Kind of Charcoal lighter Item 2: Kind of Charcoal lighter Both items contain residues of similar ignitable fluid.
NJLULU	Item 1: A heavy petroleum distillate was detected in the contents of this item. Heavy petroleum distillates of this type can be found in a variety of products including fuels such as kerosene, in some torch/lamp oils and in some automotive products such as fuel additives and engine treatments. Item 2: A heavy petroleum distillate was detected in the contents of this item. Heavy petroleum distillates of this type can be found in a variety of products including fuels such as kerosene, in some torch/lamp oils and in some automotive products including fuels such as kerosene, in some torch/lamp oils and in some automotive products such as fuel additives and engine treatments. Item 3: The contents of this item were examined for the presence of ignitable liquid residues, and none were found.
NL6X7L	Items 1 and 2 were analyzed by GC/MS 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 GC/MS; however; ignitable liquids could not be detected.
NND7E7	Items 1, 2, and 3 were extracted using a passive adsorption-elution technique and were examined using Gas Chromatography-Mass Spectrometry (GC-MS). The Item 1 and 2 extracts each contained a

WebCode	Conclusions
	medium to heavy petroleum distillate which can be found in, but it is not limited to, some lamp oils. No ignitable liquids were identified in the Item 3 extract.
NTUFLH	Items #1 and #2 - The volatile contents were recovered using a 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 was identified in Items #1 and #2. Examples include, but are not limited to, some charcoal lighter fluids, some paint thinners, and mineral spirits. Item #3 - The volatile contents were recovered using a 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 blank. No ignitable liquid residues were detected.
NX7GP2	A medium petroleum distillate was identified in Items 1 and 2. Medium petroleum distillates include, but are not limited to, some brands of charcoal starters, paint thinners, and dry cleaning solvents. No common ignitable liquid was identified in Item 3. Some conditions which 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.
NZ9CBP	Analysis of Items 1 and 2 revealed the presence of a heavy petroleum distillate. Examples of heavy petroleum distillates include kerosene, some jet fuels and some charcoal starters. Analysis of Item 3 failed to reveal the presence of identifiable flammable or combustible liquids.
P7E8R4	The Item 1 and 2 extracts each 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.
Paumfa	Item 1: Heavy Petroleum Distillate was present, examples include Kerosene, diesel fuel, and some charcoal starters and fuel additives. Item 2: Heavy Petroleum Distillate was present, examples include Kerosene, diesel fuel, and some charcoal starters and fuel additives.
PB8CL9	The evidence was received on August 18, 2014. The above items were extracted using passive adsorption/elution and analyzed using Gas Chromatograph/Flame Ionization Detector (GC/FID) and Gas Chromatograph/Mass Spectrometer (GC/MS). Item 1: A Medium Petroleum Distillate residue was identified. Examples of this include but are not limited to some paint thinners, some charcoal starters, and some dry cleaning solvents. Item 2: A Medium Petroleum Distillate residue was identified. Examples of this include but are not limited to some paint thinners, some charcoal starters, and some dry cleaning solvents. Item 2: A Medium Petroleum Distillate residue was identified. Examples of this include but are not limited to some paint thinners, some charcoal starters, and some dry cleaning solvents. Item 3: No Ignitable Liquids were identified.
PBK4C4	Items 1, 2 and 3 were extracted using passive adsorption-elution and solvent techniques and were examined using Gas Chromatography-Mass Spectrometry (GC-MS). The Item 1 and 2 extracts each contained a medium to heavy petroleum distillate which can be found in, but is not limited to, some fuel additives and kerosenes. No ignitable liquids were identified in the Item 3 extracts.
PBPFXE	In item 1 and item 2 the same kind of inflammable liquid was detected. This liquid belongs to the class Medium Petroleum Distillates (MPD), according to ASTM E1618 classification system. Examples of MPD include some paint thinners, some charcoal starters and some dry cleaning solvents.
PCYDHJ	Ex1: Heavy petroleum distillate, examples of which are some charcoal starters and some paint thinners. Ex2: Heavy petroleum distillate, examples of which are some charcoal starters and paint thinners. Ex3: Used as a comparison sample.
PFZJZA	1a: Instrumental analysis detected the presence of a Heavy Petroleum Distillate. Examples include, but are not limited to, Kerosene, diesel fuel, some jet fuels, and some charcoal starters. 2A: Instrumental analysis detected the presence of a Heavy Petroleum Distillate. Examples include, but are not limited to, Kerosene, diesel fuel, some jet fuels, and some charcoal starters. 3A: Instrumental analysis did not detect the presence of an ignitable liquid residue.
PGU34W	Kerosene based ignitable liquid present in both samples
PLPTCU	Flammable liquids were detected in the samples labelled: Item 1 and Item 2. These substances were identified as petroleum distillates C8-C13 which are typical ingredients in commerciel avialable

WebCode	Conclusions
	petroleum-based products [sic]. The detected content of hydrocarbons in the two samples is similar.
PMJJH9	Item 1 & item 2 are almost same. There are significant and consecutive n-alkanes of C9 to C13 by charcoal-method and C9 to C15 by extraction. So n-alkanes of C9 to C15 are detected. Characteristic patterns of isoparaffinic compounds appear among the n-alkanes but less than n-alkanes.
PNFZU6	Upon analysis I found that both "Item 1" and "Item 2" are [sic] bear traces of Petroleum Distillates and Sub-class were Medium.
PVYBVD	Item 1: An ignitable liquid was detected. This liquid was identified as a medium to heavy petroleum distillate. Products of this type have a variety of uses which may include charcoal lighter and heating fuel. Item 2: An ignitable liquid was detected. This liquid was identified as a medium to heavy petroleum distillate. Products of this type have a variety of uses which may include charcoal lighter and heating fuel. Item 3: No ignitable liquids were detected.
PVYEKG	A medium or medium-heavy petroleum distillate was detected in the plastic bag containing the carpet sample from the entry way (Item 1). Examples of medium and medium-heavy petroleum distillates include some paint thinners, some charcoal starters, some lamp oils, some torch fuels, and some solvents for insecticides and polishes. A medium or medium-heavy petroleum distillate was detected in the plastic bag containing the carpet sample from the bathroom (Item 2). No ignitable liquids were detected in the plastic bag containing the comparison carpet sample (Item 3).
PWNK4T	Item 1 contained a swatch of black carpet (approx. 5cm x 5cm). A medium petroleum distillate (e.g. white spirits) was detected in this item. Item 2 contained a swatch of black carpet (approx. 5cm x 5cm). A medium petroleum distillate (e.g. white spirits) was detected in this item. Item 3 contained a swatch of black carpet (approx. 5cm x 5cm). No accelerant was detected in this item.
QFZRUF	A heavy distillate product was identified in Items #1-1 (carpet) and #1-2 (carpet). Examples of products in this class may include some kerosenes, gasoline treatments, paint thinners, and lamp fuels. No ignitable liquids were identified in Item #1 - 3 (control samples).
QHPXCQ	Exhibits 1 and 2, pieces of carpet, were both found to contain a medium to heavy petroleum distillate: an example of which is kerosene. Exhibit 3 submitted as a comparison blank did not contain any ignitable liquid residue.
R3722M	it was found that blank sample (item 3) do not contains any ignitable liquid residue or any other contaminant. items 1 and 2 contains ; heavy petroleum distillate (C9-C15+)which can be used as a combustible.
R3MTED	A heavy petroleum distillate was detected in Item 1 and Item 2. Examples of a heavy petroleum distillate include but are not limited to kerosene and some charcoal starters. No ignitable liquids were detected in Item 3.
R3ZPFC	A heavy petroleum distillate was identified in Lab Items 1 and 2. No ignitable liquids were identified in Lab Item 3.
R6XTJK	Item 1. Contains a Medium to Heavy Petroleum Distillate with n-alkanes ranging from Nonane (C-9) through Tetradecane (C-14). Examples of products with this distillates range include, but are not limited to, some fuel injector cleaners, some jet fuels, and some diesel fuel additives. Item 2. Contains a Medium to Heavy Petroleum Distillate with n-alkanes ranging from Nonane (C-9) through Tetradecane (C-14). Examples of products with this distillate range include, but are not limited to, some fuel injectors cleaners, some jet fuels, and some diesel fuel additives. Item 3. No ignitable liquid was detected.
RD3MQ7	Instrumental analysis of exhibits #1 & 2 revealed heavy petroleum distillate.
RR3JT6	The volatile contents of each item were extracted using a passive heated headspace adsorption elution concentration technique and the resulting extract was analyzed using gas chromatography with a flame ionization detector (GC/FID) and gas chromatography with a mass selective detector (GC/MS). A medium range petroleum distillate was detected in Item 1 and also in Item 2. Examples of medium range petroleum distillates include, but are not limited to, paint thinners, mineral spirits, and specialty solvents. No ignitable liquids were detected in Item 3.
PTYACO	1. A medium patroloum distillate was detected in Evhibits 1 and 2, uses of which include, but are not

WebCode	Conclusions
	limited to, some octane boosters, some charcoal starters, some paint thinners and some dry cleaning solvents. Medium petroleum distillates are ignitable liquids and could act as a fire accelerant. 2. No ignitable liquid, or its residue, was detected in Exhibit 3.
RTX6JB	The above items were examined in accordance with standard [State] Laboratory methods and procedures based upon ASTM International guidelines. The samples were extracted using passive headspace sampling and analyzed via gas chromatography-mass spectrometry. Items 1 and 2: An ignitable liquid residue was detected- a medium petroleum distillate. Medium petroleum distillates can originate from some charcoal starters, some paint thinners, and some dry cleaning solvents, as well as some wood staining products, insecticides, and automotive parts cleaners. Item 3: No ignitable liquid residues were detected. Item 3 was submitted as a comparison sample for Items 1 and 2.
T8CPHV	Items 1, 2 and 3 were examined using passive headspace adsorption and gas chromatography/mass spectrometry. Items 1 and 2 were each found to contain a medium petroleum distillate (MPD). Examples of such mixtures include some paint thinners, some charcoal lighters and some organic solvents. No common ignitable liquid residues were detected in the comparison sample (Item 3).
TALZBR	Items 1 and 2 were found to contain a medium range petroleum distillate. Examples of medium range petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners and some dry cleaning solvents. Item 3, listed as a carpet substrate, was examined and no ignitable liquids were identified.
TDZEYY	Item 1 & 2 A mix of gasoline and a heavy petroleum distillate in the following exhibits: [participant code]M 01, [participant code]M 02
TJN8Y6	Analysis by Gas Chromatography/Mass Spectrometry of the carpet samples (Item 1A) reveals the presence of a medium to heavy petroleum distillate with a carbon range of C9-C14. Examples of Heavy Petroleum Distillates include: some charcoal starters, Kerosene, Diesel fuel, Fuel Oil No. 1, Fuel Oil No. 2, Jet fuel, some paint thinners, some torch fuels, some lamp oils and some solvents for insects sprays and polishes. Examples of Medium Petroleum Distillates 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 carpet sample (Item 1B) reveals the presence of a medium to heavy petroleum distillate with a carbon range of C9-C14. Examples of Heavy Petroleum Distillates include: some charcoal starters, Kerosene, Diesel fuel, Fuel Oil No. 1, Fuel Oil No. 2, Jet fuel, some paint thinners, some torch fuels, some lamp oils and some solvents for insect sprays and polishes. Examples of Heavy Petroleum Distillates include: some charcoal starters, Kerosene, Diesel fuel, Fuel Oil No. 1, Fuel Oil No. 2, Jet fuel, some paint thinners, some torch fuels, some lamp oils and some solvents for insect sprays and polishes. Examples of Medium Petroleum Distillates 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. Examples of Medium Petroleum Distillates 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 carpet sample (Item 1C) fails to reveal the presence of any ignitable liquids, including methanol, ethanol, isopropanol and acetone.
U4AFJD	No ignitable liquids were identified in the control bag (item 3) containing carpet substrate
UB8Y4G	Item 1: The submitted sample was analyzed using a passive headspace technique and gas chromatography/Mass Spectrometry (GC/MS). A Heavy Petroleum Distillate was identified. Examples of this type ignitable liquid include: kerosene, diesel fuel, some jet fuels and some charcoal starters. Item 2: The submitted sample was analyzed using a passive headspace technique and gas chromatography/mass spectrometry (GC/MS). A Heavy Petroleum Distillate was identified. Examples of this type ignitable liquid include: kerosene, diesel fuel, some jet fuels, and some charcoal starters.
UERVT8	Exhibits 1 and 2 contained a medium petroleum distillate, which is an ignitable liquid. Examples of medium petroleum distillates include some paint thinners, some mineral spirits, and some charcoal starters. No ignitable liquids were identified in Exhibit 3.
UGZ3XK	An ignitable liquid classified as a heavy petroleum distillate was detected in Items 1 and 2. Examples include charcoal starters, jet fuel, or fuel injector cleaners. No ignitable liquid was detected in Item 3. The unused carbon strips from Item 1 through 3 and an empty bag were booked as Item 4 of the same DR.
UP8V7F	Within the limits of the applied methodology, the presence of a medium petroleum distillate was revealed in items 1 and 2 (Carpet samples taken from near the suspected attempted ignition site in the entryway and near the suspected attempted ignition site in the restroom hallway). This class of

WebCode	Conclusions
	products includes in particular some charcoal starters, paint thinners, insecticide vehicles or cleaning solvents. Moreover, no ignitable liquide[sic] residues was detected in Item 3.
UPRHK4	Analysis of exhibits FLAMa, Item 1 and FLAMa, Item 2 detected the presence of a medium to heavy petroleum distillate (examples: some fuel additives, some lamp oils, some charcoal starters, kerosene, etc.). Analysis of exhibit FLAMa, Item 3 failed to detect the presence of an ignitable liquid. All exhibits were initially extracted using direct, heated headspace sampling and then were further extracted by passive headspace adsorption onto activated charcoal strips. The extracts were analyzed by gas chromatography-mass spectrometry.
UQKJGE	Exh 1. Heavy petroleum distillate, examples of which are paint thinners and some brands of charcoal starter fluids. Exh. 2 Heavy petroleum distillate, examples of which are paint thinners and some brands of charcoal starter fluids. Exh. 3 Used for comparison to Exhibits 1 and 2.
UUMDJQ	Items 1 and 2 each contained a medium-range petroleum distillate (MPD). Examples of MPDs include some charcoal starters, some paint thinners, and some kerosenes. Item 3 was analyzed for comparative purposes only.
UVDJXV	[No Conclusions Reported.]
UXLQ3A	Item 1 was determined to contain the following: A Medium to Heavy Petroleum Distillate Ignitable Liquid (carbon range C9-C15), examples of which include some charcoal starters, some paint thinners and some dry cleaning solvents. Item 2 was determined to contain the following: A Medium to Heavy Petroleum Distillate Ignitable Liquid (carbon range C9-C15), examples of which include some charcoal starters, some paint thinners and some dry cleaning solvents. Item 3 was determined to contain the following: This item was submitted as a comparison sample.
UXMNBJ	Both Item 1 and Item 2 contain similar flammable liquid. Which is medium petroleum distillate (C8-C13).
V7P6HF	A vapour similar to a medium petroleum distillate (C8 - C13)was detected with both items 1 and 2. Sources of this vapour could be from products such as mineral spirit, charcoal lighter fluid and wood floor cleaner. Nothing of significance was detected with item 3
V93R3F	For Item 1 and Item 2: The submitted sample was analyzed using a passive headspace technique and gas chromatography/mass spectrometry (GC/MS). A Heavy petroleum distillate was identified. Examples of a Heavy petroleum distillate include kerosene, diesel fuel, some jet fuels, and some charcoal starters.
VDRGED	Item 1 - Heavy petroleum distillate, examples of which are kerosene, fuel oils, diesel fuels, and some brands of charcoal starters. Item 2 - Heavy petroleum distillate, examples of which are kerosene, fuel oils, diesel fuels, and some brands of charcoal starters.
VDXEZB	The submitted items were sampled for ignitable liquid residues using a passive charcoal adsorption technique. The samples were analyzed using gas chromatography with mass spectrometry. A Medium Petroleum Distillate was detected in Items 1 and 2. Examples of medium petroleum distillates include some charcoal starters, paint thinners and dry cleaning solvents. No ignitable liquid residues were detected in Item 3 (substrate control).
VNHNN4	Item 1: Analysis revealed the presence of a heavy petroleum product, examples include diesel fuels, some kerosenes, and some specialty solvents. Item 2: Analysis revealed the presence of a heavy petroleum product, examples include some diesel fuels, some kerosenes, and some specialty solvents. Item 3: No ignitable liquids were detected.
VNTX9N	Item 1 contained a medium petroleum distillate (MPD). Item 2 contained a medium petroleum distillate. Commercially available products that may contain an MPD include some charcoal starters and some paint thinners. Item 3 was analyzed for comparison purposes only.
VTK32T	Item 1 contained residues of Medium Petroleum Distillate, for example paint thinner. Item 2 contained residues of Medium Petroleum Distillate, for example paint thinner.
VW7T9N	On analysis, I've detected the present of medium petroleum distillate on item 1 and item 2.
VWABBU	A medium petroleum distillate was identified in Items 1 and 2. Medium petroleum distillates include, but are not limited to, some charcoal starters, paint thinners and dry cleaning solvents. No common

WebCode	Conclusions
	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 positive identification. C. An uncommon ignitable liquid was present.
VXFTAP	Items 1 and 2 were found to contain a medium-range petroleum distillate. Examples of medium-range petroleum distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Item 3 was analyzed as a comparison sample. No ignitable liquids were detected.
VXFVW9	Q1 consisted of a heat-sealed nylon bag containing a piece of black carpet. GC/MS analysis of Q1 disclosed the presence of a Medium Range Petroleum Distillate. Examples of Medium Range Petroleum Distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents. Q2 consisted of a heat-sealed nylon bag containing a piece of black carpet. GC/MS analysis of Q2 disclosed the presence of a Medium Range Petroleum Distillate. Examples of Medium Range Petroleum Distillates include, but are not limited to, some charcoal starters, some paint thinners, and some dry cleaning solvents.
W2G2CE	In the samples analized [sic] are detected flammable liquids, type petroleum destillates [sic].
W6XLZF	Item 1 and Item 2 contain a heavy petroleum distillate product. Some examples of a heavy petroleum distillate product are kerosene, diesel fuel and some charcoal starters.
WCFQDA	Item 1 was sampled and tested utilizing gas chromatography - mass spectrometry and it was determined to contain a medium petroleum distillate. Examples of medium petroleum distillates include some charcoal starters, some paint thinners, and some dry cleaning solvents. The contents of Item 1 were visually examined and consisted of one square apparent piece of black carpet foam. Item 2 was sampled and tested utilizing gas chromatography - mass spectrometry and it was determined to contain a medium petroleum distillate. Examples of medium petroleum distillates include some charcoal starters, some paint thinners, and some dry cleaning solvents. The contents of Item 2 were visually examined and consisted of one square apparent piece of black carpet foam.
WMVUB8	A blend of two ignitable mid-range products was identified in items 1 and 2. This product is consistent with a blend of a mid-range distillate and an aromatic solvent. No petroleum derived ignitable liquid residues were identified in item 3.
WRVVJG	Analysis of Item 1 and Item 2 each disclosed the presence of an ignitable liquid from the medium petroleum distillate class. Examples of this class include some charcoal starters, some paint thinners and some dry cleaning solvents. Analysis of Item 3 did not identify the presence of an ignitable liquid. This does not preclude the possibility that an ignitable liquid was present at an earlier time.
WT2DGC	Item 1: Carpet sample taken from near the suspected attempted ignition site in the entryway. A heavy petroleum distillate was detected. Examples include: Kerosene, jet fuels, fuel oils, diesel fuels, insect sprays, some charcoal starters, some torch fuels, some paint thinners, some solvents for insecticides and polish and some lamp oils. Item 2: Carpet sample taken from near the suspected attempted ignition site in the restroom hallway. A heavy petroleum distillate was detected. Examples include: Kerosene, jet fuels, fuel oils, diesel fuels, insect sprays, some charcoal starters, some torch fuels, some paint thinners, some solvents for insecticides and polish and some lamp oils. Item 2: Carpet sample taken from near the suspected attempted ignition site in the restroom hallway. A heavy petroleum distillate was detected. Examples include: Kerosene, jet fuels, fuel oils, diesel fuels, insect sprays, some charcoal starters, some torch fuels, some paint thinners, some solvents for insecticides and polish and some lamp oils.
WT3F3B	Item 1: confirmed medium petroleum distillate item 2: confirmed medium petroleum distillate
WW2LN9	Items 1 and 2 were each analyzed and determined to contain a heavy petroleum distillate. Examples of heavy petroleum distillates include, but are not limited to, kerosene, diesel fuel, some jet fuels, some charcoal starters, and some wood treatment products. This conclusion is based upon gas chromatography-mass spectrometry (GC-MS) analysis of concentrated headspace vapors from the sample.
WXWA4H	Item 1: An ignitable liquid classified as a heavy petroleum distillate was detected. Examples of heavy petroleum distillates include charcoal starters, fuel injector cleaners, diesel fuel, or jet fuel. Item 2: An ignitable liquid classified as a heavy petroleum distillate was detected. Examples of heavy petroleum distillates include charcoal starters, fuel injector cleaners, diesel fuels, or jet fuel. Item 3: An ignitable liquid was not detected.
WZLH8R	Item 1 and Item 2 both contain a medium miscellaneous flammable liquid. The cause of the fire may

WebCode	Conclusions
	therefore be classified as arson.
X79L2F	Analysis of Item 1 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. 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. 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.
X79QAW	001 Carpet from entryway - Analysis of an activated charcoal strip extract by gas chromatography/mass selective detector identified a heavy petroleum distillate. Products in this class include, but are not necessarily limited to: diesel fuel, kerosene, some jet fuels and some charcoal starter fluids. 002 Carpet from restroom hallway - Analysis of an activated charcoal strip extract by gas chromatography/mass selective detector identified a heavy petroleum distillate. Products in this class include, but are not necessarily limited to: diesel fuel, kerosene, some jet fuels and some charcoal starter fluids. 003 Carpet for comparison blank - Analysis of an activated charcoal strip extract by gas chromatography/mass selective detector failed to identify an ignitable liquid product. Note: Approximately half of each activated charcoal strip extract was sub-itemized and returned attached to the outside of each item of evidence unless otherwise noted. The identification of an ignitable liquids 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.
XCW73B	It was determined utilizing passive headspace concentration extraction with activated charcoal strip and gas chromatography mass spectrometry that Item 1 and item 2 exhibited the presence of a petroleum distillate in the heavy range.
XLJEG7	Three samples of similar-appearing unburned carpet samples were submitted for flammable substance testing. Samples were extracted using a dynamic, heated head-space technique and collected on activated charcoal traps (500-200 mesh). The charcoal traps were rinsed with carbon disulfide and the carbon disulfide was analyzed by gas chromatography equipped with a mass selective detector (GCMS). The carbon disulfide extracts from Items 1 and 2 (samples possible containing flammable liquids) were found to contain a medium boiling point petroleum distillate (classified under ASTM E1618-14, Ignitable Liquid Classification Scheme). The carbon disulfide extract from Item 3 (control carpet sample) did not contain a petroleum distillate or any other volatile components that could be considered as a flammable substance.
Y6P7XY	[No Conclusions Reported.]
Y8XCHE	Analysis of Item 1 and Item 2 disclosed the presence of an ignitable 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 for comparison purposes.
YAXUAE	Residues of a heavy petroleum distillate (HPD), with carbon range C9 - C15, were identified on Items 1 and 2. Examples of heavy petroleum distillate include kerosene, diesel fuel, some jet fuels and some charcoal starters. No ignitable liquid residues were identified on Item 3.
YCB844	1 - Heavy petroleum distillate, examples of which are kerosene, fuel oils, diesel fuels and some brands of charcoal starter fluid. No alcohol was found. 2 - Heavy petroleum distillate, examples of which are kerosene, fuel oils, diesel fuels and some brands of charcoal starter fluid. No alcohol was found. 3 - Used for comparison to Exhibits 1 and 2.
YDW3HV	On analysis, I found that Item 1 and Item 2 to bear traces of accelerant that are consistent with petroleum distillates (subclass heavy). Item 3 was not detected any accelerant.
YERLLH	A medium petroleum distillate was detected in Items 1 and 2. Medium petroleum distillates include, but are not limited to, some charcoal starters and lamp oils, mineral spirits, solvents for some paints and stains, some paint and stain thinners, some kerosene substitutes, some wood treatments and preservatives and numerous other specialty application solvents and thinners. No ignitable liquids were detected in Item 3.

WebCode	Conclusions
YLUQH9	An ignitable liquid comparable to a medium (C8-C12) petroleum distillate was identified in Items #1 and #2. Examples of the medium petroleum distillate class of ignitable liquids include mineral spirits, some paint thinners, some charcoal lighter fluids, some torch fuels and some solvents for insecticides and polishes. Item #3 is listed as a control sample.
YMNGNM	Item 1 was found to contain a medium-range petroleum distillate. Examples of medium-range petroleum distillates include, but are not limited to, some charcoal starters, some lamp fuels and some paint thinners. 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, some lamp fuels and some paint thinners.
YPA9QC	Items 1 and 2 contain a medium to heavy petroleum distillate. This product has a greater abundance of aromatic components than is normally found in straight run distillates. The formulation may have some aromatic naphthas blended in to meet specific solubility purposes. Formulations of this type may be found in some parts cleaners, some paint thinners, some insecticide vehicles, etc.
YQ977E	Both Items #1 and #2 were found to contain a miscellaneous product comprised of a medium aromatic blended with a Medium-Heavy Petroleum Distillate. *Examples of miscellaneous products include some blended and some specialty products. Examples of Medium Aromatics include some auto parts cleaners. Cleaning solvents and fuel additives. Examples of Medium Petroleum Distillates include some charcoal starters, paint thinners, and dry cleaning solvents. The Heavy Petroleum distillates also include some charcoal starters along with kerosene and diesel. No ignitable liquids were detected in Item #3 (control sample): Items 1-3 were extracted by passive concentration headspace extraction with activated charcoal and analyzed by GC/MS.
YTFN7V	Examination of Items #1 and #2 revealed the presence of a medium - heavy petroleum distillate. Medium - heavy petroleum distillates include some charcoal starters and some paint thinners. Examination of Item #3 failed to reveal the presence of ignitable liquids.
YU6RY3	Item 1 was found to contain a piece of black carpet. A medium-heavy petroleum distillate was identified in this item. Item 2 was found to contain a piece of black carpet. A medium-heavy petroleum distillate was identified in this item. Item 3 was found to contain a piece of black carpet. No ignitable liquids were identified in this item. Examples of a medium-heavy petroleum distillate may include but are not limited to mineral spirits, automotive parts cleaners, and fuel additives.
YXAEXZ	Item 1 Analysis revealed the presence of a heavy petroleum product, examples include some diesel fuels, some kerosenes, and some specialty solvents. Item 2 Analysis revealed the presence of a heavy petroleum product, examples include some diesel fuels, some kerosenes, and some specialty solvents. Item 3 No ignitable liquids were detected.
YYGZ6D	ltems #1 & #2 Medium petroleum distillate identified. Examples are mineral spirits, some paint thinners, some charcoal starters. Item #3 Comparison Sample - No ignitable liquids identified.
ZEAYKE	Results: An ignitable liquid, identified as a heavy petroleum distillate in the range of C9 to C14 was isolated on samples 1 and 2. Some examples of consumer products that may contain such a heavy petroleum distillate are, but are not limited to, kerosene, some charcoal lighter fluids, and some jet fuel. Volatile chemical residues were isolated on the comparison carpet, sample 3. The volatile chemical residues isolated on sample 3 do not compare favorably to current laboratory standards of ignitable liquids. Conclusion: Based on the samples that were submitted and analyzed as described, it is the opinion of this laboratory that a foreign ignitable liquid was isolated on samples 1 and 2. The foreign ignitable liquid isolated on samples 1 and 2 has been identified as a heavy petroleum distillate in the C9 to C14 range. It is also the opinion of this laboratory that no foreign ignitable liquids were isolated on sample 3, the comparison carpet.
ZGFDBT	Items 1, 2 and 3 were extracted using a passive adsorption-elution technique and were examined using Gas Chromatography-Mass Spectrometry (GC-MS). The Item 1 and 2 extracts each 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.
ZJ6LGN	Exhibits "A" and "B" contained Medium Miscellaneous as per ASTME -06 classification which is comparable to commercial standard Turpentine.
ZKGCUY	Analysis by Gas Chromatography/Mass Spectrometry of the carpet samples (Item 1A) reveals the

#### WebCode

#### Conclusions

presence of a medium to heavy petroleum distillate with a carbon range of C9 - C15. Examples of MPD's include: some paint thinners, mineral spirits, some charcoal starters, some torch fuels, some lamp oils, some dry cleaning solvents and some solvents for insecticides and polishes. Examples of HPD's include: some lamp oils, Kerosene, Diesel fuel, Fuel Oil No. 1, Fuel Oil No. 2, Jet fuel, some paint thinners, some torch fuels, and some solvents for insect sprays and polishes. Analysis by Gas Chromatography/Mass Spectrometry of the carpet samples (Item 1B) reveals the presence of a medium to heavy petroleum distillate with a carbon range of C9 - C15. Examples of MPD's include: some paint thinners, mineral spirits, some charcoal starters, some torch fuels, some lamp oils, some dry cleaning solvents and some solvents for insecticides and polishes. Examples of HPD's include: some paint thinners, mineral spirits, some charcoal starters, some torch fuels, some lamp oils, some dry cleaning solvents and some solvents for insecticides and polishes. Examples of HPD's include: some paint thinners, mineral spirits, some charcoal starters, some torch fuels, some lamp oils, some dry cleaning solvents and some solvents for insecticides and polishes. Examples of HPD's include: some lamp oils, Kerosene, Diesel fuel, Fuel Oil No. 1, Fuel Oil No. 2, Jet fuel, some paint thinners, some torch fuels, and dome solvents for insect sprays and polishes. Analysis by Gas Chromatography/Mass Spectrometry of the carpet sample (Item 1C) fails to reveal the presence of any ignitable liquids including methanol, ethanol, isopropanol, and acetone.

- ZKZ6KB [No Conclusions Reported.]
- ZN29EH Item 1 and Item 2 each consists of an approximately two inch square of carpet. The extract of Exhibits 1 and 2 each contained an ignitable liquid identified as a heavy petroleum product which can be found in but not limited to, kerosenes and some automotive additives. Item 3 consists of an approximately two inch square of carpet submitted as a comparison blank. No ignitable liquids such as alcohols, solvents or petroleum products could be identified in the extract from the exhibit. Exhibit 1, 2 and 3 were each extracted using a direct headspace and a passive headspace technique and analyzed using gas chromatography/mass spectrometry.
- ZU7ZP2 Item 1: Analysis detected the presence of a heavy petroleum distillate product Examples of heavy petroleum distillate products include, but are not limited to kerosene, diesel fuel, some jet fuels, and some charcoal starters. Item 2: Analysis detected the presence of a heavy petroleum distillate product Examples of heavy petroleum distillate products include, but are not limited to kerosene, diesel fuel, some jet fuels, and some charcoal starters. Item 3: This was analyzed for comparison purposes to Items 1 and 2.
- ZVCRBM Sample Preparation: (1) Passive Headspace Extraction. Analytical Methods: (1) Gas Chromatography/Flame Ionization Detection. (2) Gas Chromatography/Mass Selective Detection. Item 1: A medium petroleum product was identified. Examples of medium petroleum products include some paint thinners, charcoal starters, and automotive cleaning solvents. Item 2: A medium petroleum product was identified. Examples of medium petroleum products include some paint thinners, charcoal starters, and automotive cleaning solvents. Item 3: No ignitable liquids were detected.
- ZZ8JJJ Items A1-1 and A1-2 were 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 a "Control Sample" used for comparison purpose.

## **Additional Comments**

WebCode	Additional Comments
286DCC	The identification of an ignitable liquid / ignitable liquid residue in a fire scene 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 at the fire scene.
2AULKR	The flammables detected on Item 1 and Item 2 to be similar.
2DBAWC	Specimens #'s 1 & 2 were a blend of medium aromatic w/ a medium to heavy petroleum distillate. The aromatic profile is the most predominant profile followed by Alkanes. Good reference match w/ misc. product purchased from NCFS (Valvoline Syn Power super Conc. Fuel injector cleaner) and TC-3 Fuel injector cleaner.
3DRKCV	A copy of the Ignitable Liquid Classification System Table is attached to every report.
3GUEE8	The identification of a volatile ignitable liquid in an item does not necessarily indicate that a fire has been deliberately set. Medium Petroleum distillates are volatile ignitable liquids that may be found in commercial products such as Varsol, barbecue starter fluids, paint thinners and some products marketed as kerosene. Possible explanations for the results of Item 3 include: No volatile ignitable liquid was ever present, any volatile ignitable liquid that was present, had evaporated.
3KPBX7	NEGATIVE (EXEMPLAR): No common commercially available ignitable liquids were chromatographically detected. (For Item #3 comparison blank substrate)
3UCB8P	For both #1 and #2 consideration of whether gasoline was the source of aromatics was exercised but a conclusion could not be reached. The lack of condensed ring aromatics at a clear level was the determining factor. The larger than normal aromatic content could not be ignored to allow only the MPD to be called.
42U4XE	The petroleum distillates, that were detected in Items 1 and 2, were classified as medium to heavy petroleum distillates, because their carbon number range fits into "medium" and also into "heavy" category. The majority of the petroleum distillate, that was detected in Item 1, is in the carbon number range of C8 to C14. The majority of the petroleum distillate, that was detected in Item 2, is also in the carbon number range of C8 to C14.
4CR4BJ	Examples of product uses of kerosene include: heating fuel, fuel additive/treatment, jet fuel, lamp oil. In the item labeled as control bag, it was detected the chromatograph peak of Nylon (sample container material).
4MAJF7	Item 3 - No ignitable liquids were detected.
4NP36A	A typical pattern of petroleum distillates, the Alkanes range in Item #1 and #2 is from C9 to C15. The normal Alkane range for MPD is between C8-C13 $\pm$ 1, and for HPD from C9 to C20 $\pm$ 1. The Alkane range in Item 1 and 2 is parents in the middle of that range and the absence of C17 and C18 in HPD, that why I classified as the range is between MPD. [sic]
63G6C2	The bag of Item 1 was almost deflated.
68ELT2	The aromatic content of Items 1 and 2 was elevated when compared to available petroleum distillate standards. The ratio of aromatics to alkanes for Items 1 and 2 was approximately 1:1. The carbon range for the dominant aromatic compounds was C8-C10 (medium). The carbon range for the alkane compounds was C9-C15 (heavy). No contribution to the alkane pattern from what would be expected of a gasoline mixture was observed. Items 1 and 2 were therefore reported as a mixture of a medium aromatic product and a heavy petroleum distillate.
6C6VYT	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.
6DHPGE	According to the [Country] refinary products, our results defined to be kerosen, in which the kerosene

WebCode	Additional Comments
	c# is from (C8-C16) [sic]
6DZE3F	The Heavy Petroleum Distillate detected on the sample labeled as item 1 and item 2, has a carbon number range between C9 – C15. The form of chromatogram is a Gaussian bell. In the item labeled as control bag, it was detected the chromatograph peak of Nylon (sample container material).
6K4BWE	1. An ignitable liquid is any liquid that is capable of fueling a fire; this includes flammable and combustible liquids, or any other material that can be liquefied and burned. 2. Flash point is defined as the minimum temperature to which a liquid must be heated for the vapours emitted to ignite momentarily in the presence of a lame[sic] under standard conditions. 3. A flammable liquid is defined as "any liquid" with a flash point below 38°C that burns readily; a combustible liquid is defined as "any liquid" with a flash point above 38°C. Both are capable of forming a flammable vapour/air mixture. 4. Flammable liquids may be used to accelerate the combustion of material that do not readily burn. 5. The techniques used to detect ignitable liquid residues are very sensitive and are capable of detecting residues not visible to the naked eye. At these levels such residues may exist in the vapour phase within the container or trapped in the matrix of the substrate enclosed by the container.
6R6NVW	Elevated aromatics noted in both Item 1 and 2. However, looking at the ratios of aromatics vs alkanes, I still believe this is a distillate and not a Misc. class. It will be interesting to see the split on this one!!
6ZWBFZ	An aromatic product was reported in Items 1 and 2 based on the aromatic compounds present in the total ion chromatogram and the ratio of aromatics to alkanes seen in the mass spectrometer ion profiles (almost 1:1). A heavy petroleum distillate was reported in Items 1 and 2 based on the pattern spanning at least 5 consecutive n-alkanes and the carbon range of C9-C15.
7JKYLL	A medium petroleum distillate (MPD) is an effective fire accelerant when soaked into an absorbent substrate, such as cloth/fabric, acting as a wick. In this case the residues were present in carpet and therefore they were potentially ignitable. The proprietary brand name/ product has not been identified.
8Q2WPZ	Carbon C-strip adsorption at 69°C for 16 hours. Desorption with CS2, 250ul CS2 and ½ C-strip. Medium range (nC8 - nC13). Heavy range (nC9 - nC20).
8Z3GP8	It should be noted that aromatic compounds were also detected in high abundance in both items #001 and #002, which can sometimes be associated with some medium petroleum distillate compounds.
96WT7P	Items 1, 2, and 3 were initially extracted using direct, heated headspace sampling and then were further extracted by passive headspace adsorption onto activated charcoal strips. The extracts were analyzed by gas chromatography- mass spectrometry.
9LZ8MJ	Strong aromatics in samples 1 and 2.
A9AVMT	Carbon range C9 - C12
AFWJNQ	The ignitable liquid was classified as a heavy because C9-C15 was detected (normal alkanes nonane-pentadecane). This sample may also be classified as medium to heavy petroleum distillate according to ASTM 1618-11.
AJT86X	The ratio of aromatics to alkanes for Items 1 and 2 were approximately 1:1. Therefore, it was reported as a mixture of a medium aromatic product and a heavy petroleum distillate. The carbon range for Items 1 and 2 was C9-C15, with a continuous pattern of more than 5 consecutive n-alkanes.
BNJW62	No ignitable liquids were detected in Item #3. A negative result means that this laboratory did not detect any ignitable liquids in the submitted sample.
C7XT27	Item 3 = No peaks (only solvent artefacts). Item 1 = Gaussian curve nC8-nC14 (peaking at nC10/11); Aromatics & Alkanes EIC confirm petroleum derived pattern; alkane profile more significant than aromatic profile. Item 2 = Gaussian curve nC8-nC14 (peaking at nC10/11); Aromatics & Alkanes EIC confirm petroleum derived pattern; alkane profile more significant than aromatic profile.
EELAHI	lanitable liquid classification scheme will be sent along with the report

WebCode	Additional Comments
EFGTL9	Medium petroleum distillate defined as C8-C13 for this test, however trace amounts of C14 were detected.
EGVBRY	Medium to heavy range.
ERB6YL	This product can also be classified as a medium to heavy petroleum product considering the presence of C15. ASTM 1618-11 10.1.3.4 states that it may be necessary to characterize a product as "light to medium" or "medium to heavy" when the carbon number range does not fit neatly into the above categories. In such instances the carbon number range should be reported. A medium petroleum distillate should not be below C7 or above C14. C15 is present in these samples hence the sub-classification of heavy.
EWKDAN	The data obtained for both item 1 and item 2 meet the criteria for a heavy petroleum distillate based on the ASTM E1618 standard. The normal alkane range extends beyond the accepted range for medium petroleum distillates; however, the pattern range obtained for item 1 and item 2 appears somewhat narrower and lighter than most typical heavy petroleum distillates. The patterns produced for items 1 and 2 did not correspond exactly with data from any in-house ignitable liquid standards. The data appears most similar to NCFS database sample reference number 0269 classified as a HPD. This is a specialty product for use as a fuel additive/treatment product. The ASTM standard permits hybrid classifications such as medium-heavy petroleum distillate, but such hybrid classifications are not currently included in this lab's standard operating procedures and this examiner is not aware of any documented hybrid classification examples in available published or online ignitable liquid databases.
F76BAT	GCMS comparisons show no differences between the petroleum destillates[sic].
F8JKHT	Items 01 and 02 are no doubt petroleum distillates. I don't feel that the product identified strictly belongs in the medium class range because the pattern of this product fits into the C8-C15 range and had eight N-alkanes in a row with six of them being major peaks. I believe this product falls into the medium-heavy range.
FBJQXY	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 reveal a legitimate reason for the presence liquid residues. Our laboratory is situated in [Country], 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. [sic]
FPJQP3	The identification of an ignitable liquid in an item does not necessarily lead to the conclusion that a fire was deliberately set. The submitted items have been analyzed by gas chromatography-mass spectrometry (GC/MS), which is a standard instrumental technique.
GZWAKH	Examples of a medium petroleum distillate may include but are not limited to some charcoal starters, some paint thinners, and some dry cleaning solvents. Examples of a heavy petroleum distillate may include but are not limited to kerosene, diesel fuel, some jet fuels, and some charcoal starters. These items were processed using passive headspace concentration with activated charcoal strips and analyzed using a gas chromatograph / mass spectrometer.
HA2ECY	The obtain[sic] results of the exhibits match to STP Fuel injector and carburetor cleaner standard.
J6VHXN	The unanalyzed portion of the activated charcoal strips are being returned to the submitting agency along with the rest of the original evidence.
JND8LN	The items were not examined for low molecular weigh[sic] oxygenated solvents including methanol, ethanol or isopropanol.
JW6XVW	The detected carpet substrate compounds negligible influenced on chromatographic pattern of suspected material and interpretation of results. [sic]
К9С6А9	No flammables liquid was found on the carpet substrate 'Item 3'.
lcbqnh	Item 3 contained no ignitable liquid.
LD4T3K	ITEM 1 AND ITEM 2 HAVE A SIMILAR COMPOSITION TO SRN 36 IN NCFS (NATIONAL CENTER FOR FORENSIC SCIENCE) DATA BASE. THIS SRN IS CLASSIFIED AS MISCELLANEOUS

WebCode	Additional Comments
	(AROMATIC+HPD).
LZYLBU	If no ignitable liquid residues are detected in the debris this does not necessarily indicate that an accelerant was not used in the fire. Possible explanations include: - Ignitable liquids were present but the tests used were not sensitive enough to confirm this; - Ignitable liquids were present but had evaporated prior to the tests being conducted (possibly due to incorrect packaging and/or storage, or the ignitable liquid was totally consumed in the fire); - Ignitable liquids were involved in the fire but a sample was not collected from the correct position; - The accelerant used was not a common petroleum distillate, e.g. paper or pyrotechnic composition could have been used. Similarly, 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.
N2PBRT	Items 1 and 2 were dissimilar in odor, so it is possible that the ignitable liquids(s) used are not from the same source.
NBC8UU	Items #1 and #2 had carbon range of C8-C13, with very little C14 present. Could be medium to heavy petroleum distillate.
P7E8R4	Items 1, 2 and 3 were each extracted using a passive adsorption-elution technique and were examined using Gas Chromatography-Mass Spectrometry (GC-MS).
PGU34W	Lighter fraction than most kerosene products
PLPTCU	No flammable liquids were detected in the sample labelled: Control bag. The content of aromatic hydrocarbons detected in the samples labelled: Item 1 and Item 2 is relatively high compared to petroleum-based products in [Country].
PWNK4T	Our laboratory does not employ the ASTM Ignitable Liquid Classification Scheme.
QHPXCQ	"Although an ignitable liquid 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 (e.g. degreasers, carburettor cleaners, etc.), or as "carrier" for the key compounds (e.g. some aerosol or liquid products)."
R3MTED	Activated charcoal strips were used to collect any volatile organic compounds with an adsorption/elution technique. The compounds were then analyzed with a gas chromatograph/mass spectrometer. The charcoal strips used are contained in plastic vials and have each been repackaged inside the original item.
R6XTJK	The C-strips in each of the items were adsorbed at 65C for 18 hours.
TDZEYY	[participant code]03 - was negative!!
TJN8Y6	Item 1A in the report is CTS Item 1. Item 1B in the report is CTS Item 2 and Item 1C in the report is CTS Item 3. Each item was removed from its original sealed plastic bag and placed into a sealed mason jar.
UP8V7F	Despite the presence of C15 in Items 1 and 2, they have been classified as Medium petroleum distillates because of the weak abundance of C15. Also, for each item, two sets of extraction and analysis were performed: the first on[sic] in the inner bag with the item; the second one only with the outer bag. No traces of volatiles were detected by analysing the extractions in the outer bags.
V7P6HF	Question to be asked during the investigation - are there any legitimate reason why this ignitable liquid could be present. We request that CTS provide printouts of the chromatograms for items 1-3 in the final report.
VDXEZB	The MPD in Items 1 and 2 have unusually high aromatics.
W6XLZF	No ignitable liquids were detected in Item 3. A negative result means that the laboratory did not identify ignitable liquids in the submitted sample.
WT3F3B	Examples include some charcoal starters, some paint thinners and some dry cleaning solvents
WZLH8R	Both Item 1 and 2 is comparable to the commercial product Turpentine.
YAXUAE	Item 1 through Item 3 were analyzed using a passive adsorption/elution technique followed by gas chromatography.

WebCode	Additional Comments
YLUQH9	Ratios of the extracted ions for alkanes, aromatics and cycloparaffins were compared to laboratory reference standards to rule out a mixture. Ratios were consistent with medium petroleum distillate reference material.
YMNGNM	Item 3 was analyzed for comparison purposes only.
YQ977E	For Items #1 - #2: Aromatic profile most abundant followed by n-alkanes. If weathered gasoline, I would expect to see a higher abundance of poly nuclear aromatics and C4-Alkylbenzenes. Presence of N-alkanes a contribution from the petroleum distillate. The C8-C15 range put the distillate in a Medium to Heavy range,
YXAEXZ	Items 1 and 2 are reported to contain a heavy petroleum product due to the higher than expected aromatic component. The higher aromatic component could be a[sic] from a petroleum distillate, however a blended product resulting from the addition of aromatics can not be ruled out.
ZKGCUY	Item 1A above is agency Item 1. Item 1B above is agency Item 2. Item 1C above is agency Item 3.

## **Appendix: Data Sheet**

Collaborative Testing Services ~ Forensic Testing Program

### Test No. 14-536: Flammables Analysis

DATA MUST BE RECEIVED BY October 06, 2014 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

#### Accreditation Release Statement

CTS submits external proficiency test data directly to ASCLD/LAB and ANSI-ASQ NAB/FQS. 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 and/or ANSI-ASQ NAB/FQS. (Accreditation Release section on the last page must be completed and submitted.)

This participant's data is **NOT** intended for submission to ASCLD/LAB or ANSI-ASQ NAB/FQS.

#### **Online Data Entry**

Visit <u>www.cts-portal.com</u> to enter your proficiency test results online. If you have any questions please do not hesitate to contact CTS.

#### Scenario:

Police are investigating a suspected attempted arson at a restaurant. It appears that the attempted fire was started in two places, the entryway and the hallway near the restrooms. Investigators collected pieces of unburned carpet which appeared to contain a possible spill from areas near each suspected attempted ignition site. The carpet samples were immediately sealed within nylon evidence bags. The police are requesting you to identify any flammable liquid(s) that may be present on the carpet samples.

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 FLAM):

- Item 1 Carpet sample taken from near the suspected attempted ignition site in the entryway.
- Item 2 Carpet sample taken from near the suspected attempted ignition site in the restroom hallway.
- Item 3 Carpet substrate intended as a comparison blank in a Nylon evidence bag.

#### Please return all pages of this data sheet.

## 1.) Using the ASTM E 1618-14 Ignitable Liquid Classification Scheme, indicate the class for any flammable substance 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		Item 2				
No Ignitable Liquid(s) Detected							
<u>Class</u>	Subclass		Subclass				
Gasoline							
Petroleum Distillates (including De-Aromatized)							
Isoparaffinic Products	$\Box$						
Aromatic Products							
Naphthenic Paraffinic Products							
Normal Alkanes Products	$\Box$						
Oxygenated Solvents							
Others - Miscellaneous							
2.) Flammable Recovery Te	chniques						
Headspace							
Room Temperature Heated (Temperature:°C )							
Adsorption/Elution							
Adsorbent:		Desorption:					
Carbon/Charcoal		Solvent:					
Other: Thermal							
Passive Dynamic							
Other Recovery Techniques							
Specify:							
3.) Flammable Identification Techniques							
Indicate the technique(s) used to identify any flammables detected.							
GC GC/MS Other (specify):							

#### Please return all pages of this data sheet.

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

5.) Additional Comments	
Return Instructions: Data must be received via	Participant Code:
online data entry, fax (please include a cover sheet),	ONITINE DATA ENTRY: www.cts-portal.com
or mail by <i>October 06, 2014</i> to be included in the	$FAX_{+} + 1.571.434.1937$
	or Toll-Free: 1-866-FAX-2CTS (329-2287)
TEL: +1-571-434-1925 (8 am - 4:30 pm EST)	MAIL: Collaborative Testing Services, Inc.
EMAIL: forensics@cts-interlab.com	P.O. Box 650820

Sterling, VA 20165-0820 USA

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www.ctsforensics.com

Collaborative Testing Services ~ Forensic Testing Program

#### **RELEASE OF DATA TO ACCREDITATION BODIES**

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

#### for Test No. 14-536: Flammables Analysis

This release page must be completed and received by **October 6, 2014** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

ASE				
If your lab has been accredited by ASCLD/LAB and you are submitting this data as part of their external proficiency test requirements, have the laboratory's designated individual complete the following. The information below must be completed in its entirety for the results to be submitted to ASCLD/LAB.				
national Certificate No				
Date				

ANSI-ASQ NAB/FQS RELEASE			
If your laboratory maintains its accreditation through ANSI-ASQ NAB/FQS, please complete the following form in its entirety to have your results forwarded.			
ANSI-ASQ NAB/FQS Certificate No			
Signature and Title	Date		
Laboratory Name			
Location (City/State)			

#### **Accreditation Release**

<u>Return Instructions</u> *Please submit the completed Accreditation Release at the same time as your full data sheet. See Data Sheet Return Instructions on the previous page.* 

Questions? Contact us 8 am-4:30 pm EST Telephone: +1-571-434-1925 email: forensics@cts-interlab.com

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