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T-13 Information Letter 16-3
Sequence No. 3
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ASTM consensus has not been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.

TO: Mack Surveillance Panel Mailing List

SUBJECT: T-13 FTIR Peak Height Oxidation Name Change

During the August 1, 2016 Mack Surveillance Panel teleconference the panel unanimously agreed to change the name of the IR peak height oxidation measurement parameter in the T-13 test in order to avoid confusion within the industry. The reported oxidation parameter for the T-13 will be called "T-13 FTIR Peak Height Oxidation". As a result, the attached revisions are necessary. Sections 10.3.5, 11.6.1, 11.6.2, 11.8 and Tables 5 and 7 been updated accordingly and are attached.

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Attachment
c: ftp://ftp.astmtmc.cmu.edu/docs/diesel/mack/procedure_and_ils/T-13/il16-2-T13.pdf

Distribution: Email

(Revises 8048-16 as amended by IL's 16-1 and 16-2)

10.3.5 Oxidation— Determine oxidation using both integrated IR and T-13 FTIR Peak Height. The IR measurement procedure documents are available from the TMC.

Table 5 Oil Sampling and Analysis Schedule

Method	D5967-A4	D445-3	D445-5	D664-1	D4739	FTIR T12 IR		FTIR T12 Nitr	D3524M	D5185	
	Soot Mass % TGA	Viscosity At 40°C mm²/s	Viscosity At 100°C mm²/s	TBN	TAN	IR Oxidation		IR Nitration Peak Height	Fuel Dilution	Wear Metals	Sample Volume
						Integrated	T-13 Peak				
Hours	5 mL	40 mL		35 mL		10 mL			10 mL	10 mL	120 mL
0	X	X	X	X	X	X	X	X		X	120 mL
24[A]											120 mL
48	X	X	X	X	X	X	X	X	X	X	120 mL
72[A]											120 mL
96	X	X	X	X	X	X	X	X		X	120 mL
120	X	X	X	X	X	X	X	X		X	120 mL
144	X	X	X	X	X	X	X	X		X	120 mL
168	X	X	X	X	X	X	X	X		X	120 mL
192	X	X	X	X	X	X	X	X		X	120 mL
216	X	X	X	X	X	X	X	X		X	120 mL
240	X	X	X	X	X	X	X	X		X	120 mL
252		X	X			X	X	X		X	120 mL
264	X	X	X	X	X	X	X	X		X	120 mL
276		X	X			X	X	X		X	120 mL
288	X	X	X	X	X	X	X	X		X	120 mL
300		X	X			X	X	X		X	120 mL
312	X	X	X	X	X	X	X	X		X	120 mL
324		X	X			X	X	X		X	120 mL
336	X	X	X	X	X	X	X	X		X	120 mL
348		X	X			X	X	X		X	120 mL
360	X	X	X	X	X	X	X	X	X	X	120 mL

[A] 120 mL samples at 24 h and 72 h may be analyzed at the discretion of the lab.

11.6.1 The specified measurements for reference oil tests are T-13 FTIR peak height oxidation in absorbance (cm) and percent increase in viscosity at 40 °C from 300 h to 360 h.

11.6.2 *T-13 FTIR Peak Oxidation Height* – Measure the EOT T-13 FTIR peak height oxidation in accordance with section 10.3.5 and report it on the appropriate form.

11.8 Non-Reference Oil Test Result Severity Adjustments—This test method incorporates the use of Severity Adjustments (SA) for non-reference oil test results. A control chart technique, described in the LTMS document, has been selected for determining SA's for T-13 FTIR peak height oxidation, and percent increase in viscosity at 40 °C from 300 h to 360 h.

TABLE 7 Test Precision

Measured Units		
Test Result	Intermediate Precision, (i.p.)	Reproducibility, (R)
T-13 FTIR peak height oxidation, absorbance/cm	31.1	40.6
Square root (Percent increase in viscosity at 40 °C from 300 h to 360 h, %)	2.601	3.343