

**PC-11 VGRA Matrix Test Status**  
**February 9, 2016**

**T-13:**

The T-13 matrix has completed and all tests have been reviewed by the surveillance panel and determined to be operationally valid. The statisticians are in the process of analyzing the data. All T-13 data is posted at: <ftp://ftp.astmtmc.cmu.edu/refdata/diesel/T13/data/ltms.csv>

**COAT:**

Lab A is currently running a reference test after receiving their re-calibrated micromotion. The reference test is at hour 7 of the required 50 hours. If the reference test passes the reference criteria the one remaining VGRA test will be started. The estimated completion date of the VGRA test will be sometime the week of February 15<sup>th</sup>. All the valid reported tests have been reviewed by the task force and have been declared operationally valid. All COAT data is posted at: <ftp://ftp.astmtmc.cmu.edu/refdata/diesel/COAT/data/ltms.csv>

The field COM1 will identify the tests as VGRA matrix tests with a value of "VGRA".  
Estimated COAT Matrix Completion: ~February 15, 2016

### T-13 VGRA Matrix Test Status

	Lab-Stand	A-1	A-2	D-1	G-1	G-2
Run Order	1	PC11A* 10W30 BS1 Tech1 111339-T13 ✓	PC11Y 10W40 BS1 Tech 1 111446-T13 ✓	PC11LL 15W40 BS2 Tech3 111349-T13 ✓	PC11A 10W30 BS1 Tech1 111337-T13 ✓	PC11KK 15W40 BS2 Tech2 111439-T13 ✓
	2	PC11KK 15W40 BS2 Tech2 111438-T13 ✓		PC11Y 10W40 BS1 Tech1 111445-T13 ✓	PC11G 15W40 BS1 Tech1 113302-T13 ✓	PC11LL 15W40 BS2 Tech3 111350-T13 ✓
	3	PC11G 15W40 BS1 Tech1 108381-T13 ✓				

✓ Surveillance Panel judged operationally valid.

Test Reported

Invalid

Wrong Oil

\* Failed reference criteria

T-13 Reported Results  
(Results are not lab severity adjusted)

Oil	TestKey	Lab	Stand	IR Peak Height @ EOT	Viscosity Increase@ 40°C (%)	Comment
PC11A	111339-T13	A	1	91.8	32.4	Failed reference criteria in mild direction
	111337-T13	G	1	116	61.2	Passed reference criteria
PC11KK	111439-T13	G	2	38.0	4.9	
	111438-T13	A	1	64.8	16.1	
PC11LL	111349-T13	D	1	117.3	56.1	
	111350-T13	G	2	100.0	48.6	
PC11Y	111446-T13	A	2	123.0	59.8	
	111445-T13	D	1	116.1	51.3	
PC11G	113302-T13	G	1	116.0	53.5	
	108381-T13	A	1	119.6	62.9	

Wrong Oil

### COAT

Run #	A	G
1	823 ✓ 10W30 BS1 Tech 1 110156-COAT	832* ✓ 15W40 BS1 Tech 1 110729-COAT
2	PC11X ✓ 10W40 BS2 Tech 2 111441-COAT	PC11FF 10W30 BS2 Tech 3 111352-COAT
3	PC11FF ✓ 10W30 BS2 Tech 3 111351-COAT	PC11EE ✓ 10W30 BS2 Tech 2 111564-COAT
4	PC11EE 10W30 BS2 Tech 2 111563-COAT Aborted Oil Leak	PC11X ✓ 10W40 BS2 Tech2 111442-COAT
	PC11EE Re-run Aborted Oil Leak	
		PC11FF (rerun) ✓ 10W30 BS2 Tech 3 113212-COAT
		823 (Correct Oil) ✓ 10W30 BS1 Tech 1 113303-COAT

✓ Judged operationally valid.

\* Failed reference criteria

Test Reported

Invalid

Wrong Oil

COAT Reported Results  
(Results are not lab severity adjusted)

Oil	TestKey	Lab	Stand	Average Aeration (40-50) - %	Comment
832	110729-COAT	G	1	10.99	Failed reference prediction error criteria in the severe direction
PC11X	111442-COAT	G	1	11.40	
	111441-COAT	A	1	10.80	
PC11EE	111564-COAT	G	1	10.01	
		A	1	?	Pending Acceptable Reference
PC11FF	111351-COAT	A	1	10.73	
	113212_COAT	G	1	11.03	
823	110156-COAT	A	1	10.19	
	113303-COAT	G	1	10.39	

Wrong Oil

If there are any questions please let me know.

Best regards,  
Frank

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[ftp://ftp.astmtmc.cmu.edu/docs/diesel/PC11matrix/20160209\\_VGRAMatrixTestStatus.pdf](ftp://ftp.astmtmc.cmu.edu/docs/diesel/PC11matrix/20160209_VGRAMatrixTestStatus.pdf)