



Test Monitoring Center

@ Carnegie Mellon University
6555 Penn Avenue, Pittsburgh, PA 15206, USA

<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 18-015

DATE: June 6, 2018

TO: Yong-Li McFarland,
Chairwoman, Engine Oil Filterability Test Surveillance Panel

FROM: Michael T. Kasimirsky *Michael T. Kasimirsky*

SUBJECT: EOWT Testing from October 1, 2017 through March 31, 2018

A total of 1,024 EOWT tests were reported to the Test Monitoring Center during the report period from October 1, 2017 through March 31, 2018.

Please find attached a summary of testing activity this period.

MTK/mtk/astm0418.doc/mem18-015.mtk.doc

cc: F. M. Farber

J. A. Clark

EOWT Surveillance Panel

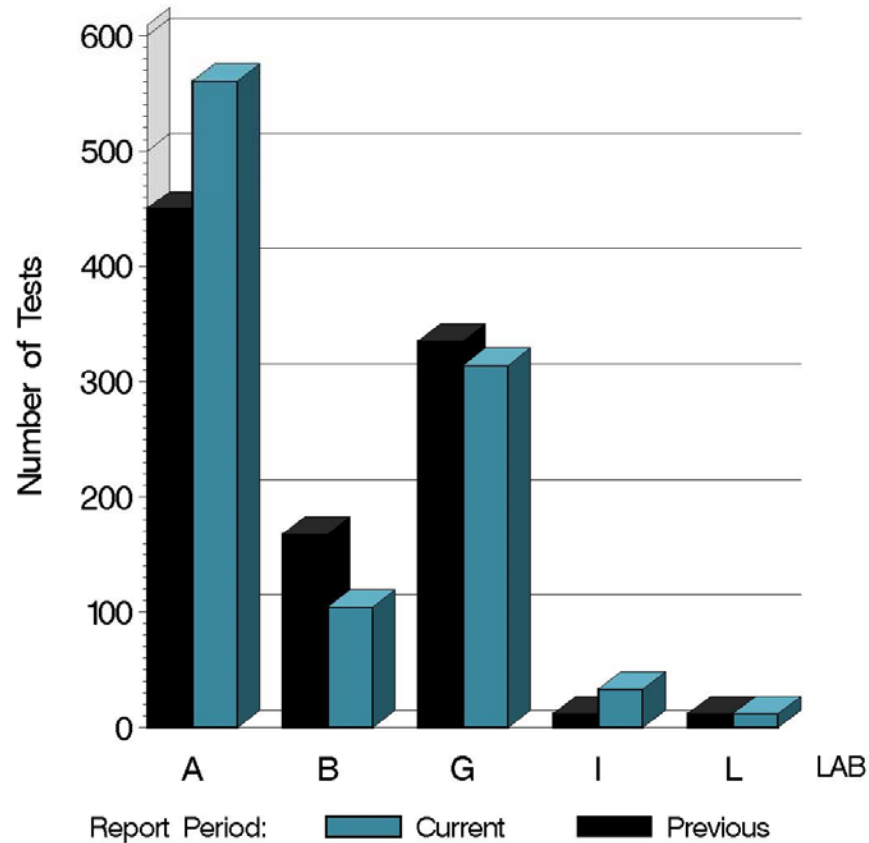
<http://www.astmtmc.cmu.edu/docs/bench/eowt/semiannualreports/eowt-04-2018.pdf>

Distribution: email

EOWT (D 6794)

Reporting Data	
Number of Labs	5

NUMBER OF TESTS REPORTED
BY LAB AND REPORT PERIOD



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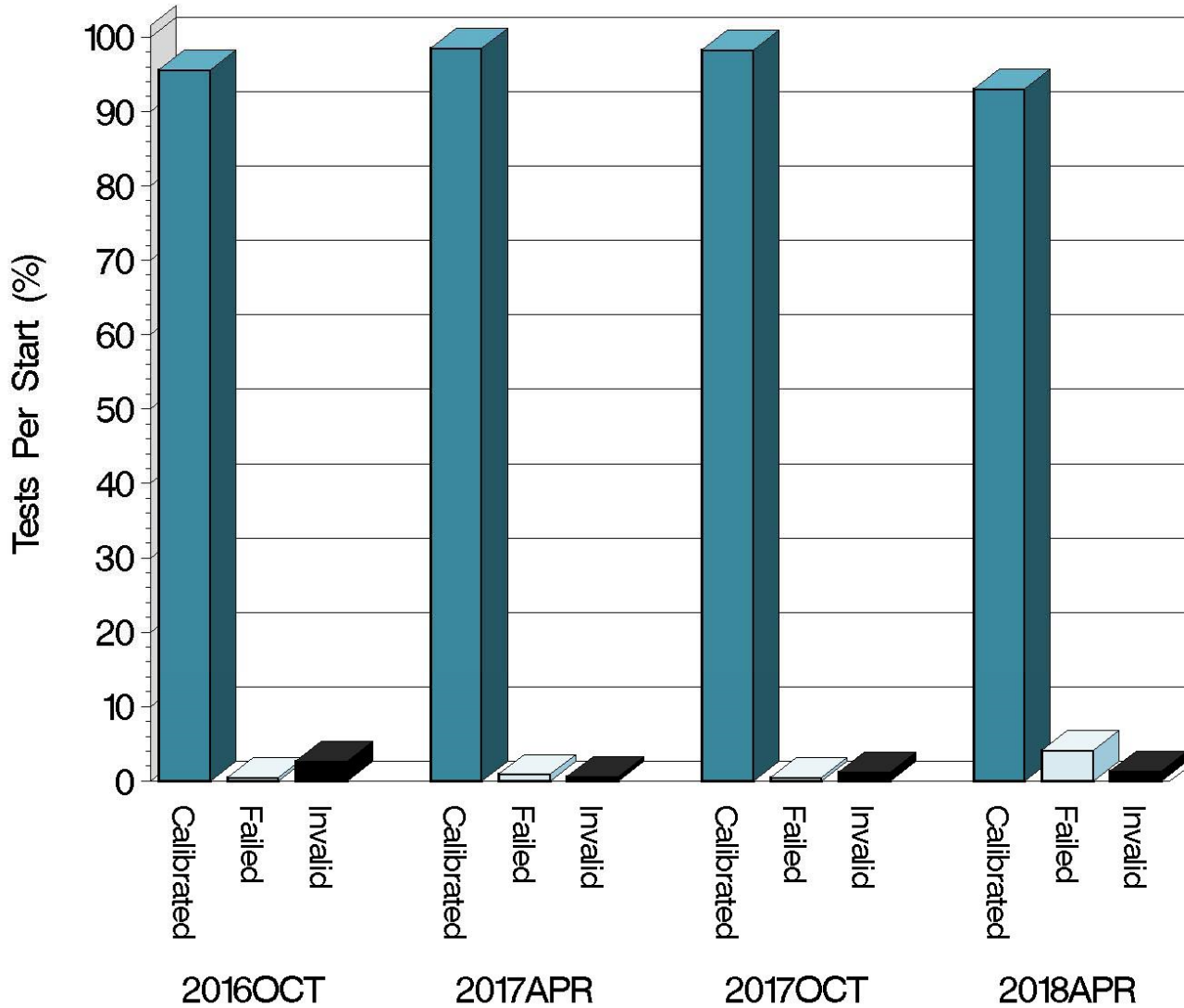
EOWT (D 6794)

Test Distribution by Oil and Validity

		By Oil				By Treat Level				Totals	
		77-2	77-3	78-2	79	0.6	1.0	2.0	3.0	This Period	Last Period
Accepted for Calibration	AC	3	458	0	492	240	237	239	237	953	960
Rejected Tests	OC	0	40	0	2	9	12	7	14	42	5
Operationally Invalid (lab)	LC	0	0	0	0	0	0	0	0	0	0
Operationally Invalid (lab/TMC)	RC	0	0	0	0	0	0	0	0	0	0
Aborted Calibration	XC	0	1	0	12	4	3	3	3	13	12
Unusable Calibration	MC	0	0	0	0	0	0	0	0	0	0
Acceptable Donated Tests	NI	0	0	0	0	0	0	0	0	0	0
Unacceptable Donated Tests	MI	0	0	0	0	0	0	0	0	0	0
Acceptable Shakedown	AS	0	9	0	6	3	5	3	4	15	0
Unacceptable Shakedown	OS	0	1	0	0	0	0	0	1	1	0
Total		3	509	0	512	256	257	252	259	1024	977

EOWT (D 6794)

CALIBRATION ATTEMPT SUMMARY



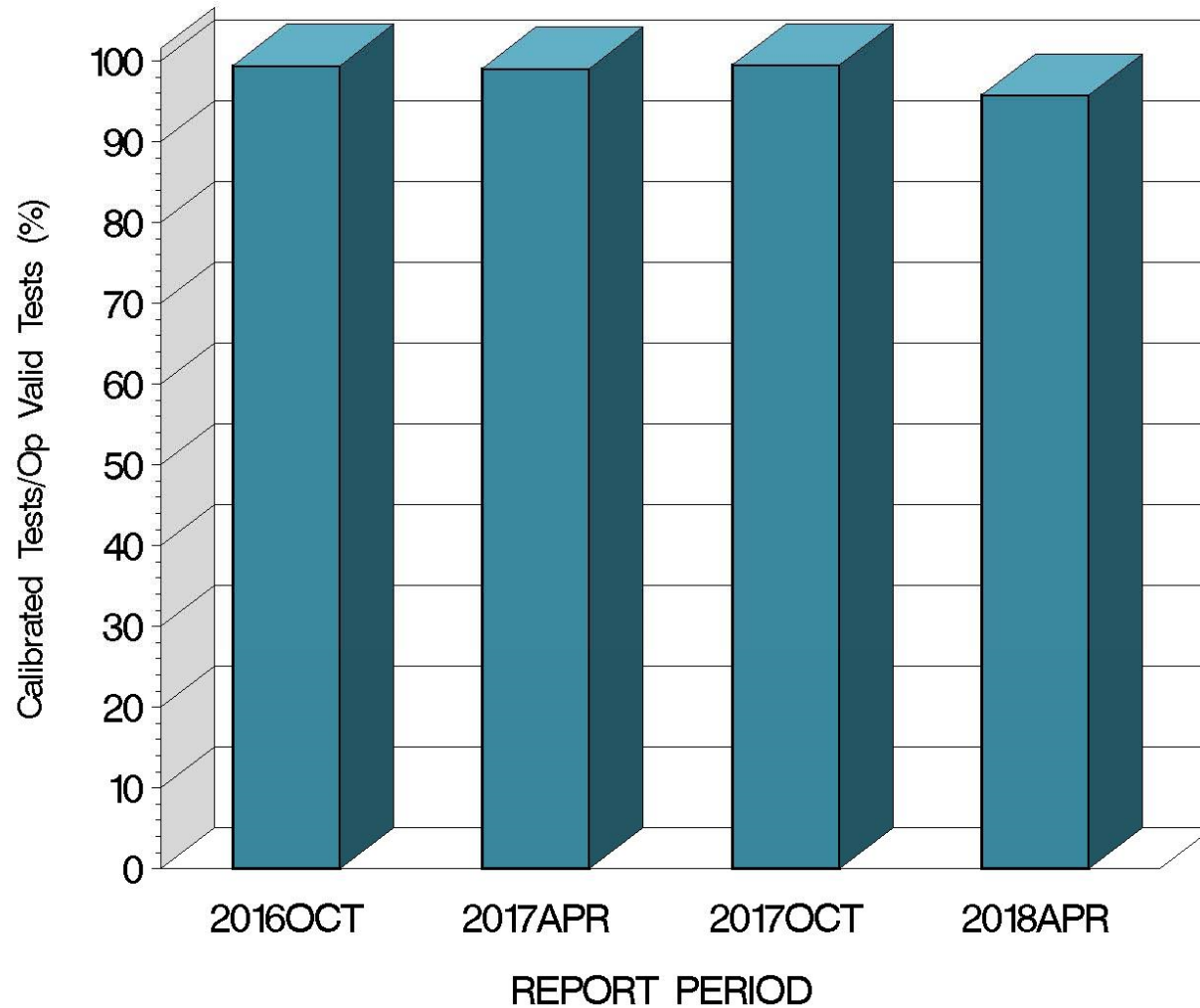
Resolution

Report Period

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EOWT (D 6794)

OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA



9:54:03 06JUN2018

EOWT (D 6794)

CAUSES FOR LOST TESTS

Lab	Cause	Oil				Validity			Loss Rate		
		77-2	77-3	78-2	79	LC	RC/ MC	XC	Lost	Starts	%
A	Sample Contaminated	0	0	0	1	0	0	1	1	561	0.2
	Sample Spilled	0	1	0	0	0	0	1	1	561	0.2
B	Sample Prep Error	0	0	0	4	0	0	4	4	104	3.8
	Oven Problem	0	0	0	4	0	0	4	4	104	3.8
	Mechanical Failure	0	0	0	3	0	0	3	3	104	2.9
	Lost	0	1	0	12	0	0	13			
	Starts	3	509	0	512	1024	1024	1024			
	%	0	0.2	0	2.3	0	0	1.3			

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Lost tests are calibration attempts that were either aborted or operationally invalid

EOWT (D 6794)

Average Δ /s By Laboratory			
Treat Level	Lab	n	CFAYI
0.6	A	136	-0.893
	B	23	-0.208
	G	79	0.996
	I	8	0.368
	L	3	-0.478
	Industry	249	-0.185
1.0	A	137	-0.894
	B	23	-0.618
	G	78	1.150
	I	8	-0.468
	L	3	-0.985
	Industry	249	-0.215
2.0	A	133	-0.710
	B	23	-0.778
	G	79	1.317
	I	8	1.290
	L	3	-0.003
	Industry	246	0.008
3.0	A	137	-0.796
	B	24	-0.772
	G	78	1.056
	I	9	0.638
	L	3	-1.054
	Industry	251	-0.170

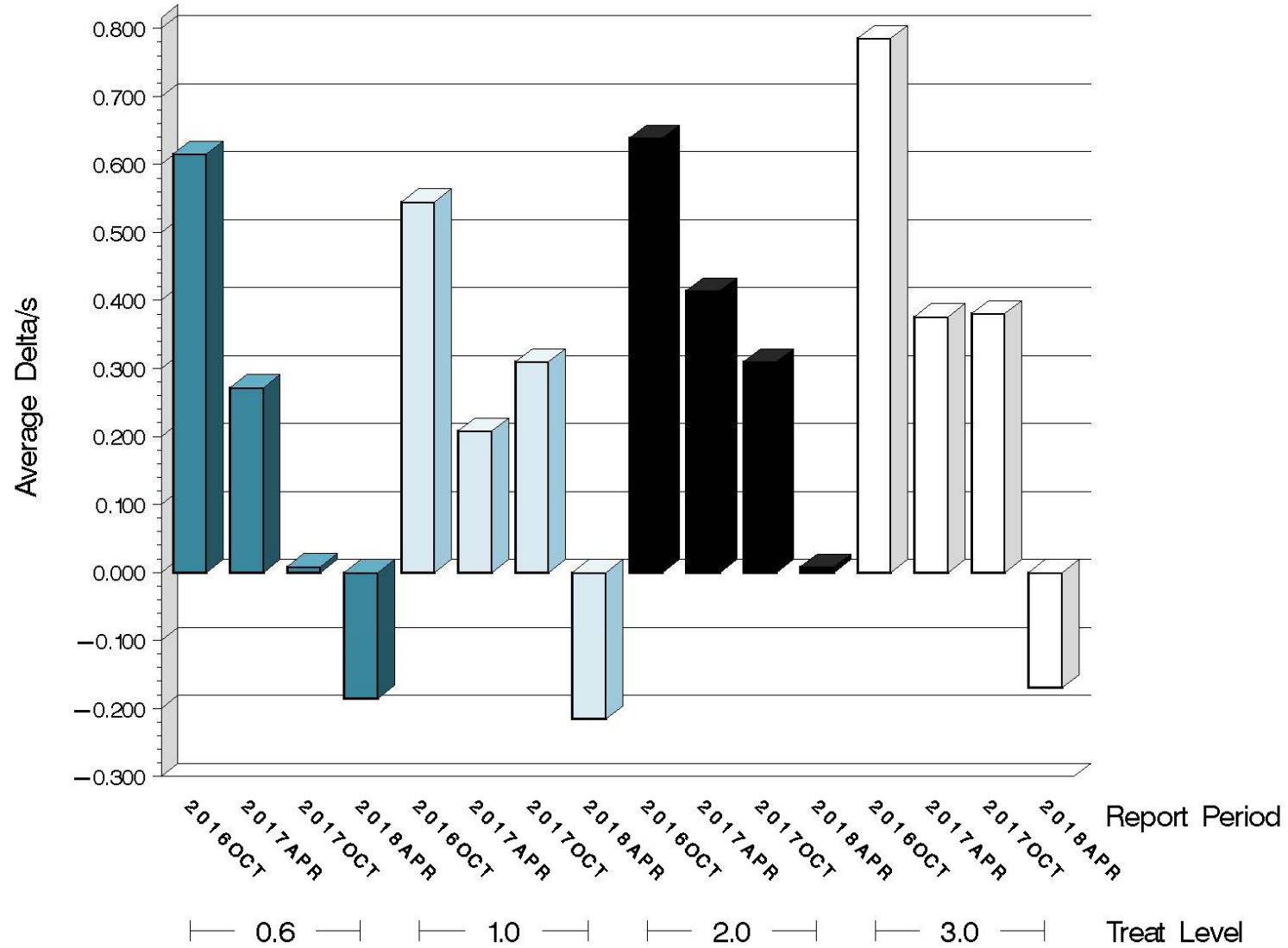
EOWT (D 6794)

Individual test results can be found on the TMC Web Page at the following link:

<http://www.astmtmc.cmu.edu/ftp/refdata/bench/eowt/data/>

EOWT (D 6794)

AVERAGE DELTA/S



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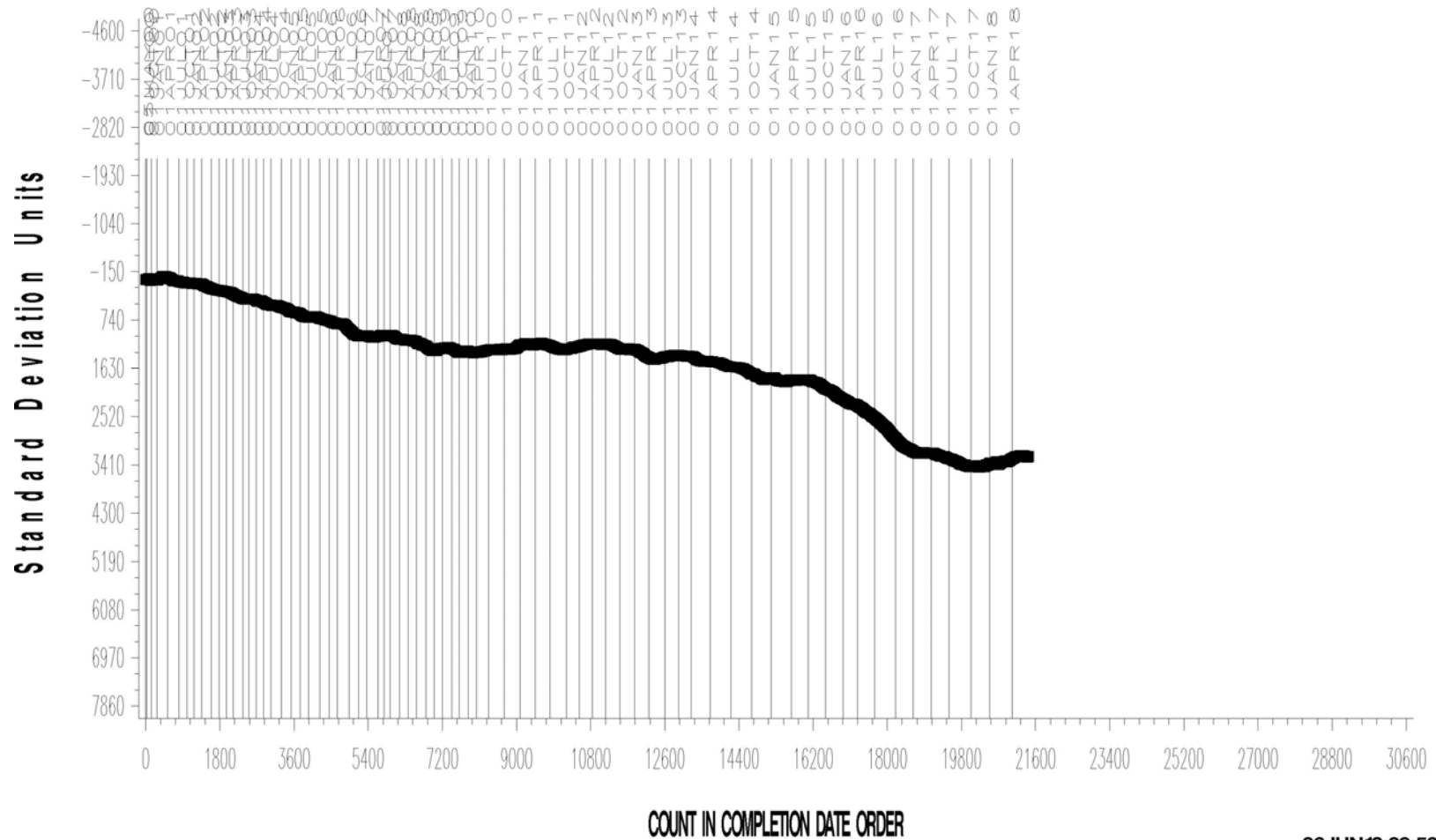
EOWT (D 6794)

EOWT INDUSTRY OPERATIONALLY VALID DATA



20 – 25 ML CHANGE IN FLOWRATE AVG.

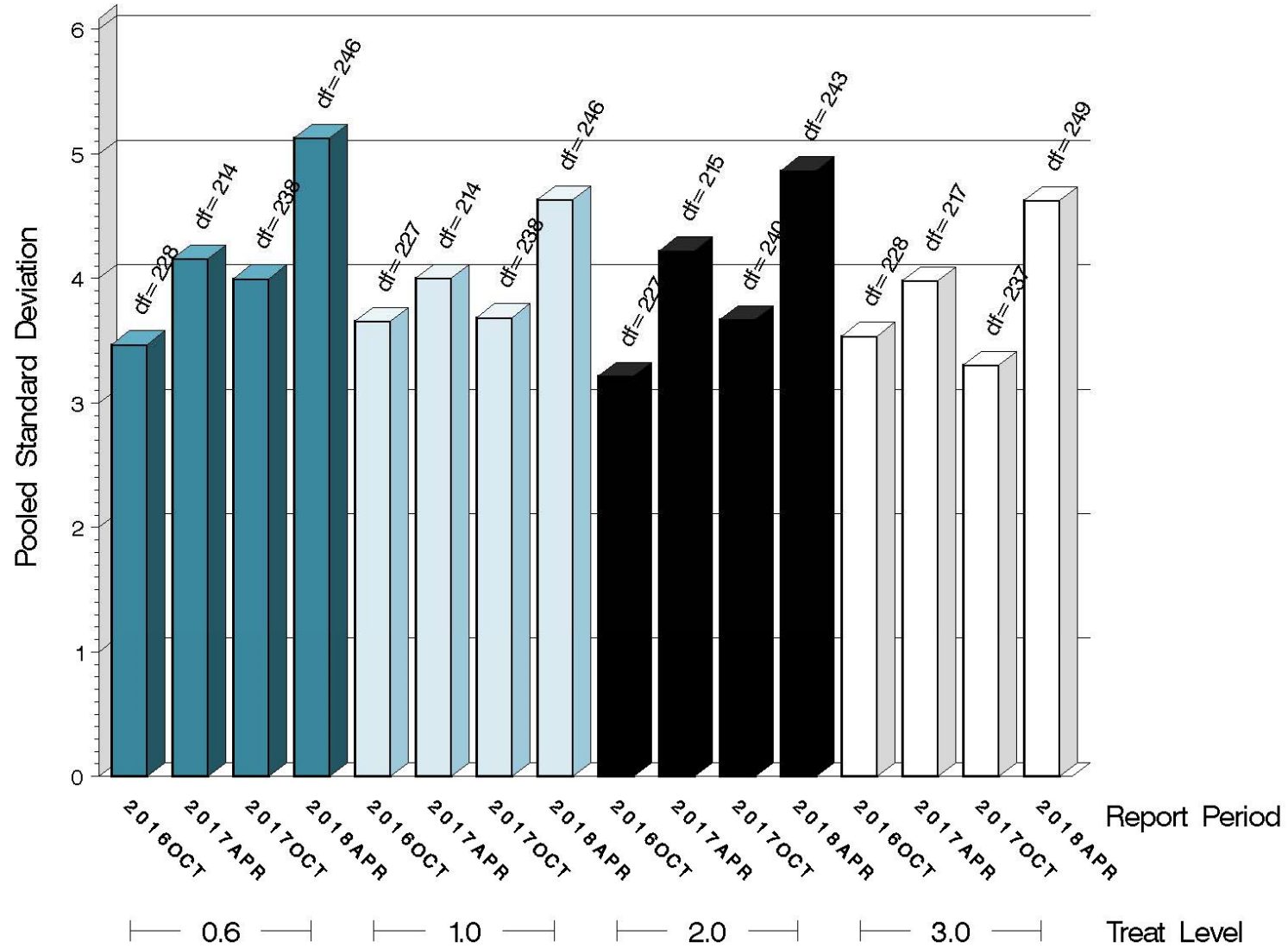
CUSUM Severity Analysis



06JUN18:09:50

EOWT (D 6794)

POOLED STANDARD DEVIATION



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EOWT (D 6794)

SUMMARY OF SEVERITY & PRECISION

Severity

Over the course of this report period, CIFA severity, as measured by CUSUM plotting, is slightly mild.

Precision

Pooled s values for this period are 5.13 (0.6%), 4.63 (1.0%), 4.87 (2.0%), and 4.62 (3.0%).

Precision, as measured by pooled standard deviation, is slightly worse than previous periods, but still comparable to historical performance.

EOWT (D 6794)

INFORMATION LETTERS

No EOWT Information Letters were issued this period.

EOWT (D 6794)

STATUS OF REFERENCE OIL SUPPLY

Oil	Samples @ Labs	@ TMC	
		Samples (290 mL)	Gallons
77-2	1	0	0.0
77-3	121	10,100	777.7
78-2	0	0	0.0
79	133	8,937	688.2
Total	255	19,037	1,465.9