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# ***Test Monitoring Center***

<http://astmtmc.cmu.edu>

# GMSP13

# Reference Test Activity

All Reference data completed 10/1/20 through 3/31/21

# Summary of Activity

- Reference test activity was high for this period and is continuing at a high level
- GMSPI3 LTMS was implemented in March
- All failed tests have been due to mild results
  - As engine builds age, test severity is lost
  - This period averaged approximately 1 pre-ignition event mild compared to prior period
    - Occurred for both oils

# GMSP13 Activity

Test Status	Validity Code	#
Acceptable Calibration Test*	AC	83
Statistically Unacceptable Calibration Test	OC	26
Aborted Calibration Test	XC	1
Invalid Calibration Test	LC	3
<b>Total</b>		<b>113</b>

# GMSP13 - Failed Tests

Test Status	#
Pre-Ignition Events - Mild	26
<b>Totals</b>	<b>26</b>

\*Test targets have not been established; will be set at 20 tests

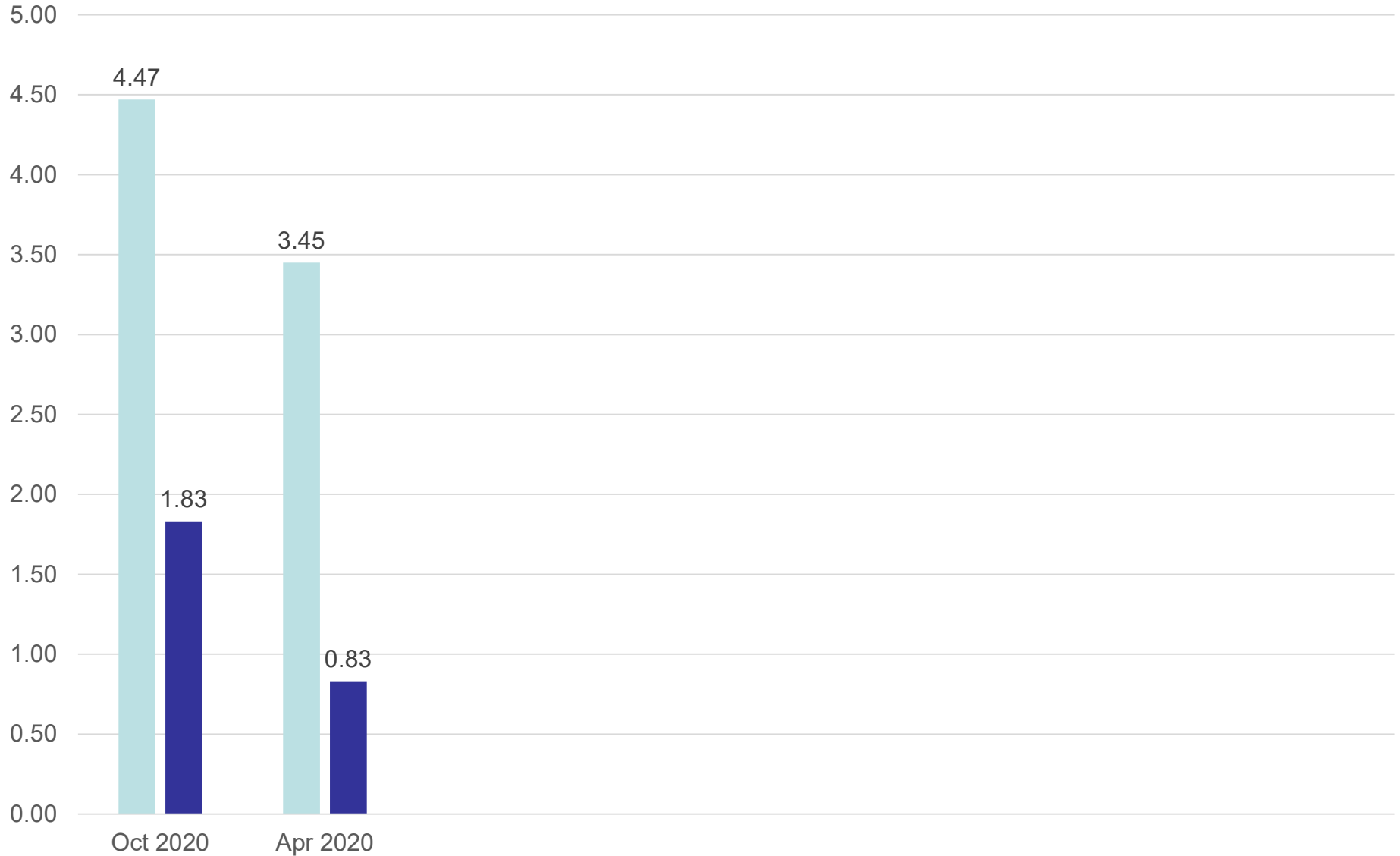
# GMSP13 - Lost Tests\*

Test Status	#
Oil charged in wrong test cell	1
Failed pressure transducer	1
Negative QI, Humidity, High Load Stage	2
<b>Totals</b>	<b>4</b>

\*Invalid and aborted tests

# Average TPICBEVT by Report Period

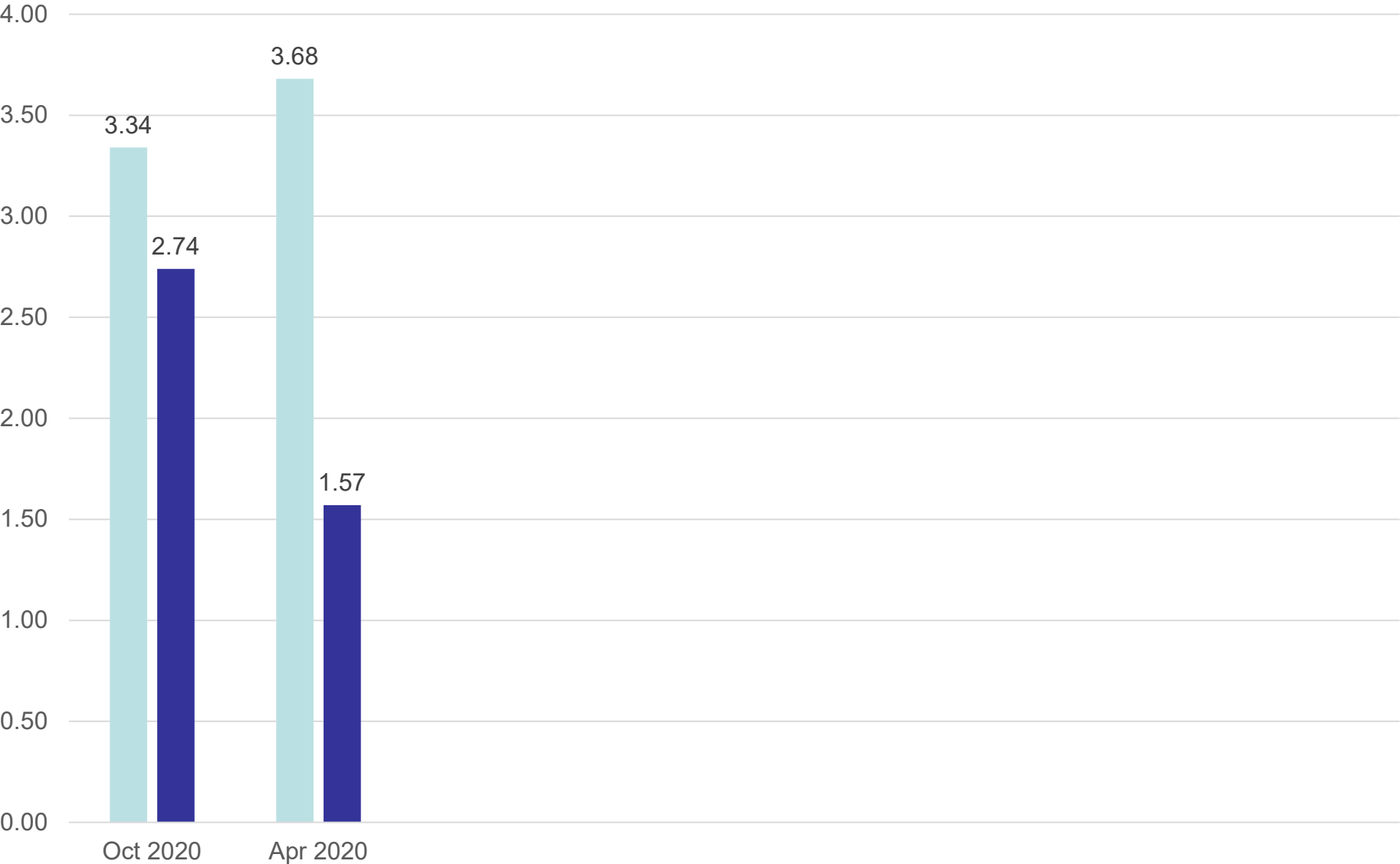
GMPI01 GMPI02



Oct 2020 averages include non-blind development tests

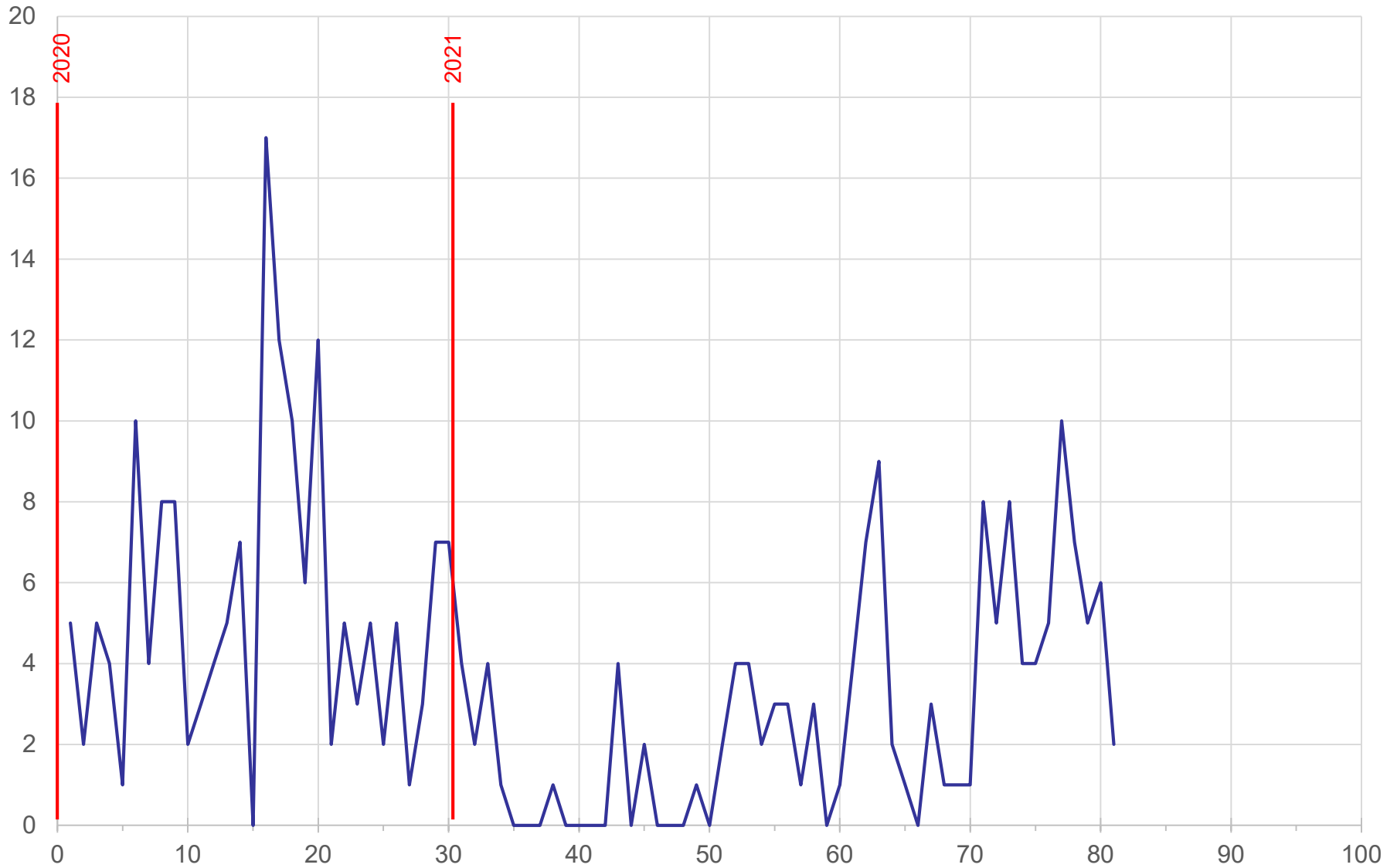
# Standard Deviation of TPICBEVT by Report Period

GMPI01 GMPI02



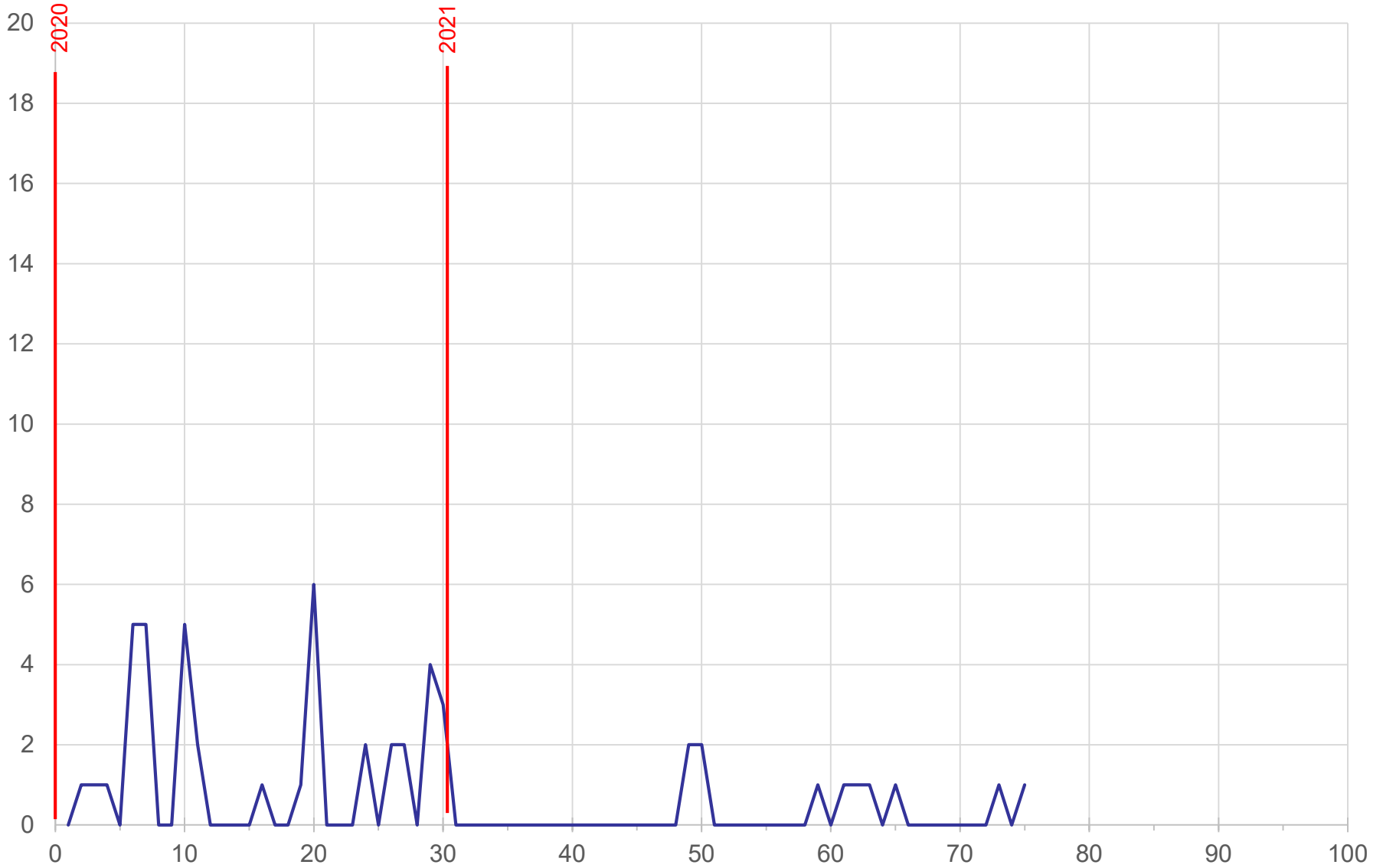
Oct 2020 standard deviations include non-blind development tests

# GMPI01 Reference Test Results





# GMPI02 Reference Test Results



# Reference Oil Inventory Estimated Life\*

Oil	Original Quantity (gallons)	TMC Inventory (gallons)	Lab Inventory (samples)	Estimated Life
GMPI01-3	404	33	20	~ 3 months
GMPI02-3**	530	350	20	~ 6 months

\*Based upon recent usage rates

\*\*GMPI01 reblend (-4) is being pursued



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