OFITE Viscometer Calibration Report

Oil Calibration Per API Recommended Practices; 13B-1 Annex I.5, 13B-2 Annex J.5, 10B-2 Annex B.3.6 and Specification 13A Section 5.2.6

Order Number:	22490	**Condition Found:**	Out of Calibration
Serial # / Local I.D. #:	5374360000007	**Condition Left:**	In Calibration
Calibration Date:	3/19/2025	**Repairs Required:**	Yes
***Recommended Due Date:**	3/19/2026	**As Found Required:**	No
Certificate Number:	537436000000745735	**Bob:**	B1
Part Number:	130-10	**Spring:**	F1
Model:	Model 800 Viscometer		

OFI Testing Equipment, Inc. - 11302 Steeplecrest Dr - Houston, Texas - 77065 - Phone: 832.320.7300 - Web: www.ofite.com

TESTING CONDITION AND CALIBRATION FLUIDS INFORMATION							
Ambient Conditions	**Lab / Room Temperature**	**°F**	**°C**	**Lab / Room Humidity**			48.3 %
		77.1 °F	25.1 °C				
Calibration Fluid Activation Date and LOT Number	**100 cP**	**Activation Date**	**Calibration Fluid LOT Number**		**50 cP**	**Activation Date**	**Calibration Fluid LOT Number**
		3/10/2025	423912			3/10/2025	228501
	(Activation Date should not exceed 30 days of the calibration date)						

RPM CHECK	± 1 RPM for speeds <100 RPM		± 1 % of nominal speed of 100 RPM or Greater			
Speed Setting	**3.0 RPM**	**6.0 RPM**	**100.0 RPM**	**200.0 RPM**	**300.0 RPM**	**600.0 RPM**
Actual	3.0 RPM	6.0 RPM	100.0 RPM	200.3 RPM	300.1 RPM	600.4 RPM
Allowed Deviation	± 1.00 RPM	± 1.00 RPM	± 1.00 RPM	± 2.00 RPM	± 3.00 RPM	± 6.00 RPM
Actual Deviation	0.0 RPM	0.0 RPM	0.0 RPM	0.3 RPM	0.1 RPM	0.4 RPM
Pass / Fail	Pass	Pass	Pass	Pass	Pass	Pass
Per API RP 10B-2 Annex B, Equipment Calibration Requirements						

AS LEFT MEASUREMENTS

Calibration Fluid Viscosity	Calibration Fluid LOT Number	Calibration Fluid Temperature	Calibrated Viscosity (CV)	600 RPM Reading	600 VIS: 600 Reading * 0.5050	Accepted Deviation	Actual Deviation ** (600 VIS - CV)	300 RPM Reading	300 VIS: 300 Reading * 1.0000	Accepted Deviation	Actual Deviation (300 VIS - CV)	200 RPM Reading	200 VIS: 200 Reading / 0.6667	Accepted Deviation	Actual Deviation (200 VIS - CV)	100 RPM Reading	100 VIS: 100 Reading / 0.3333	Accepted Deviation	Actual Deviation (100 VIS - CV)	Pass/Fail
100 cP	423912	25.1 °C	94.2	187.0	94.44	±1.50	0.24	94.5	94.5	±1.50	0.30	63.5	95.24	±1.50	1.04	31.5	94.51	±1.50	0.31	Pass
50 cP	228501	25.0 °C	47.9	95.0	47.98	±1.50	0.08	48.5	48.5	±1.50	0.60	32.5	48.75	±1.50	0.85	16.0	48.00	±1.50	0.10	Pass
																	As Left Calibration Results			Pass

** For viscometers not using a B1F1 configuration, the 600 rpm reading is shown, but is not used for determining a pass/fail.

Factory Recommendations*: Factory recalibration is recommended annually. Uncertainty: 0.5%
Calibration requirements are determined per customer's Quality Management System.

Per API RP 13B-1 and -2, viscometers used for testing drilling fluids should be verified with a traceable calibration fluid at least monthly.

Per API RP 10B-2, viscometers used for testing cements should be verified for accuracy with a traceable calibration fluid at least quarterly.

Magdy Beshay — Calibration Technician — 3/19/2025 — Date

Samantha Korenek — Reviewed By — 3/24/2025 — Date

CALIBRATION EQUIPMENT						
Fluid Thermometer	709	4000-90080-09	240024945	4000-14742432	1/9/2024	1/9/2026
	I.D. Number	**Model Number**	**Serial Number**	**Certificate Number**	**Calibration Date**	**Calibration Due Date**
Tachometer	708	R7050	230832873	C-46743	2/6/2025	2/6/2026
	I.D. Number	**Model Number**	**Serial Number**	**Certificate Number**	**Calibration Date**	**Calibration Due Date**
Ambient Monitor / Thermometer	345	RH300	Z395285	C-40456	8/20/2024	8/20/2025
	I.D. Number	**Model Number**	**Serial Number**	**Certificate Number**	**Calibration Date**	**Calibration Due Date**

AS LEFT REPORT

List all repairs made to the unit under AS LEFT measurements.

Technician changed bob shaft bearings, retainer ring, torsion shaft, shield, bob, and added wrench. Cleaned and calibrated unit.

This report meets or exceeds the requirements outlined in API RP 13B-1 Recommended Practice for Field Testing Water-based Drilling Fluids and API RP 13B-2 Recommended Practice for Field Testing Oil-based Drilling Fluids for calibration of laboratory devices, using certified master test equipment that is traceable to NIST which is a signatory to the Mutual Recognition Arrangement (MRA) with the International Laboratory Accreditation Cooperation (ILAC).