



OIL REPORT

LAB NUMBER:
 REPORT DATE: 5/4/2023
 CODE: 20/88

UNIT ID:
 CLIENT ID:
 PAYMENT:

UNIT	EQUIP. MAKE/MODEL: Ford 2.3L 4-cyl EcoBoost	OIL TYPE & GRADE: Motorcraft 5W/30
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 7,498 Miles
	ADDITIONAL INFO:	

CLIENT	PHONE:
	FAX:
	ALT PHONE:
	EMAIL:

COMMENTS Thanks for the note and congrats on your new Ranger! Universal averages show typical wear levels for this engine type after ~5,100 miles on the oil. This sample contains more metal and silicon, but that's just from break-in. A lot of this should have cleared out with your oil change, so just look for improvement next time. The viscosity was more like a 5W/20, but that's not a concern. We did see some fuel in the oil and it's harmless at a trace level, so don't let it worry you. We think you can easily run the next oil longer if you'd like. Try 10,000 miles.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	7,498	UNIT / LOCATION AVERAGES					UNIVERSAL AVERAGES
	MI/HR on Unit	7,498						
	Sample Date	4/21/2023						
	Make Up Oil Added	0.50 qts						
ALUMINUM	11	9					4	
CHROMIUM	0	0					0	
IRON	19	14					11	
COPPER	36	23					3	
LEAD	1	1					0	
TIN	1	1					0	
MOLYBDENUM	141	109					101	
NICKEL	0	0					0	
MANGANESE	3	2					2	
SILVER	0	0					0	
TITANIUM	0	0					2	
POTASSIUM	3	5					5	
BORON	71	54					97	
SILICON	73	49					18	
SODIUM	9	8					10	
CALCIUM	1520	1359					1549	
MAGNESIUM	384	436					399	
PHOSPHORUS	770	703					712	
ZINC	813	746					797	
BARIUM	2	1					2	

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	51.4	56-63				
	cSt Viscosity @ 100°C	7.71	9.1-11.3				
	Flashpoint in °F	385	>385				
	Fuel %	TR	<2.0				
	Antifreeze %	0.0	0				
	Water %	0.0	0.0				
	Insolubles %	0.2	<0.6				
	TBN						
	TAN						
ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

416 E. PETTIT AVE. FORT WAYNE, IN 46806 (260) 744-2380 www.blackstone-labs.com