BLACKSTONE LABORATORIES

OIL REPORT

LAB NUMBER:
REPORT DATE: 6/21/2024
CODE: 20/88

UNIT ID:
CLIENT ID:
PAYMENT:

UNIT

EQUIP. MAKE/MODEL: Ford 2.3L 4-cyl EcoBoost
FUEL TYPE: Gasoline (Unleaded)
ADDITIONAL INFO:

OIL TYPE & GRADE: Motorcraft 5W/30
OIL USE INTERVAL: 1,117 Miles

CLIENT

PHONE:
FAX:
ALT PHONE:
EMAIL:

COMMENTS

Like most new engines, the 2.3L EcoBoost in your Ranger is starting out with high copper and silicon levels. Both elements are almost certainly related to the normal break-in process, and they should edge closer to universal averages with each oil change. These averages show what's typical for a mature 2.3L EcoBoost after about 5,200 miles on the oil. Aside from copper, wear metals already look okay compared to averages. Fuel dilution was okay at only 1.5% of the sample, and a low/thin viscosity isn't cause for concern, either. No coolant was found.

ELEMENTS IN PARTS PER MILLION

		UNIT / LOCATION AVERAGES						UNIVERSAL AVERAGES
MI/HR on Oil	1,117							
MI/HR on Unit	1,117							
Sample Date	5/20/2024							
Make Up Oil Added	0 qts							
ALUMINUM	7	7						4
CHROMIUM	0	0						0
IRON	8	8						10
COPPER	**39**	39						3
LEAD	1	1						0
TIN	0	0						0
MOLYBDENUM	139	139						102
NICKEL	0	0						0
MANGANESE	2	2						2
SILVER	0	0						0
TITANIUM	0	0						2
POTASSIUM	2	2						5
BORON	147	147						92
SILICON	**72**	72						18
SODIUM	8	8						9
CALCIUM	1315	1315						1493
MAGNESIUM	400	400						417
PHOSPHORUS	732	732						704
ZINC	780	780						787
BARIUM	2	2						1

PROPERTIES

		Values Should Be*					
SUS Viscosity @ 210°F	**52.8**	56-63					
cSt Viscosity @ 100°C	**8.11**	9.1-11.3					
Flashpoint in °F	**355**	>385					
Fuel %	1.5	<2.0					
Antifreeze %	0.0	0					
Water %	0.0	0.0					
Insolubles %	TR	<0.6					
TBN							
TAN							
ISO Code							

*** THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE**

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