



OIL REPORT

LAB NUMBER:
 REPORT DATE: 2/25/2025
 CODE: 20/1,193

UNIT ID:
 CLIENT ID:
 PAYMENT:

UNIT	EQUIP. MAKE/MODEL: Ford 2.3L 4-cyl EcoBoost	OIL TYPE & GRADE: Mobil 1 EP 5W/30
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 9,684 Miles
	ADDITIONAL INFO:	

CLIENT	PHONE:
	FAX:
	ALT PHONE:
	EMAIL:

COMMENTS There's more fuel in this sample than we're used to seeing from your Ranger, and at 3.3%, that could show a fuel system issue. Watch for a rising oil level on the dipstick and we'll see if fuel improves next time. It's possible fuel is responsible for thinning the viscosity out of spec for 5W/30 as well. Fortunately, wear doesn't seem too bothered by the presence of fuel dilution. Aluminum and potassium have both come down, so brazing flux is flushing out of the system. Check back on fuel in ~9,000 miles.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	9,684	UNIT / LOCATION AVERAGES	9,008	7,017	7,525	7,498	UNIVERSAL AVERAGES
	MI/HR on Unit	40,710		31,036	22,040	15,023	7,498	
	Sample Date	2/13/2025		8/3/2024	3/9/2024	10/1/2023	4/21/2023	
	Make Up Oil Added	0.5 qts		0.50 qts	0.50 qts	0.50 qts	0.50 qts	
ALUMINIUM	10	9	13	4	7	11	4	
CHROMIUM	0	0	0	0	0	0	0	
IRON	10	10	8	6	9	19	10	
COPPER	2	10	2	2	10	36	3	
LEAD	1	0	0	0	0	1	0	
TIN	0	0	0	0	0	1	0	
MOLYBDENUM	87	101	86	116	77	141	103	
NICKEL	0	0	0	0	0	0	0	
MANGANESE	1	1	1	0	1	3	2	
SILVER	1	0	0	0	0	0	0	
TITANIUM	0	0	0	0	0	0	2	
POTASSIUM	14	14	44	4	6	3	5	
BORON	23	37	26	28	36	71	88	
SILICON	14	26	8	10	24	73	18	
SODIUM	5	6	5	3	7	9	9	
CALCIUM	719	1022	699	975	1197	1520	1431	
MAGNESIUM	647	524	598	504	488	384	442	
PHOSPHORUS	665	634	527	572	635	770	688	
ZINC	776	732	677	717	679	813	775	
BARIUM	0	0	0	0	0	2	1	

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°F	52.1	56-63	55.4	54.7	52.0	51.4
	cSt Viscosity @ 100°C	7.90	9.1-11.3	8.88	8.69	7.89	7.71
	Flashpoint in °F	320	>385	375	375	370	385
	Fuel %	3.3	<2.0	0.5	0.5	0.8	TR
	Antifreeze %	0.0	0.0	?	0.0	0.0	0.0
	Water %	0.0	0.0	0.0	0.0	0.0	0.0
	Insolubles %	0.2	<0.6	0.4	0.2	0.3	0.2
	TBN						
	TAN						
ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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