OIL REPORT

LAB NUMBER: M11379 **UNIT ID:** DA RANGER
REPORT DATE: 3/18/2020 **CLIENT ID:** 156629
CODE: 20/68 **PAYMENT:** CC: Discover

UNIT

MAKE/MODEL: Ford 2.3L 4-cyl EcoBoost
FUEL TYPE: Gasoline (Unleaded)
ADDITIONAL INFO: 2019
OIL TYPE & GRADE: 5W/30
OIL USE INTERVAL: 1,840 Miles

CLIENT

[redacted]
PHONE: [redacted]
FAX:
ALT PHONE:
EMAIL: [redacted]

COMMENTS

[redacted]A: Thanks for your notes. The symptoms you describe are consistent with there being fuel contamination in the oil, and our lab calculated fuel at 6.8% of the sample. This is above our cautionary level and may indicate a fuel system problem such as a leaky injector. It didn't thin the viscosity much more out of grade than last time, and it hasn't adversely affected wear, as metals look good (copper continues to decrease as the lingering wear-in washes out). We do, however, suggest having the fuel system checked and changing the oil once repairs are made.

ELEMENTS IN PARTS PER MILLION

			UNIT / LOCATION AVERAGES						UNIVERSAL AVERAGES
MI/HR on Oil	1,840		5,579						
MI/HR on Unit	7,419		5,579						
Sample Date	3/10/2020		1/27/2020						
Make Up Oil Added	0 qts		0 qts						
ALUMINUM	3	5	6						4
CHROMIUM	0	0	0						0
IRON	4	8	11						13
COPPER	**8**	25	**42**						4
LEAD	0	1	2						0
TIN	0	0	0						0
MOLYBDENUM	14	14	14						84
NICKEL	0	0	0						0
MANGANESE	0	1	2						1
SILVER	0	0	0						0
TITANIUM	0	0	0						3
POTASSIUM	3	4	4						4
BORON	110	84	57						122
SILICON	17	38	**58**						26
SODIUM	5	8	10						13
CALCIUM	1166	1206	1246						1966
MAGNESIUM	610	630	650						183
PHOSPHORUS	669	689	708						733
ZINC	733	769	804						813
BARIUM	0	1	2						1

PROPERTIES

		Values Should Be*					
SUS Viscosity @ 210°F	**51.4**	56-63	**51.2**				
cSt Viscosity @ 100°C	**7.70**	9.1-11.3	**7.63**				
Flashpoint in °F	**250**	>385	**350**				
Fuel %	**6.8**	<2.0	1.8				
Antifreeze %	0.0	0.0	0.0				
Water %	0.0	0.0	0.0				
Insolubles %	0.1	<0.6	0.2				
TBN							
TAN							
ISO Code							

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

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