



OIL REPORT

LAB NUMBER:
 REPORT DATE: 5/21/2018
 CODE: 20/685

UNIT ID: TOYOTA 076684
 CLIENT ID:
 PAYMENT: CC: Visa

UNIT	MAKE/MODEL: Toyota 2.5L 4-cyl (2AR-FE) VVT-i	OIL TYPE & GRADE: Autozone 5W/30
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: Miles
	ADDITIONAL INFO: 2009 Rav 4	

CLIENT	
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COMMENTS Universal averages show typical results for this type of 2.5L after putting ~7,300 miles on the oil. Next to those, copper is on the high side, potentially showing wear at a brass/bronze part like a bushing. Or, if there have been any recent repairs, the excess copper may be from something harmless like wear-in. The viscosity is in the correct range for a 5W/30 and the TBN of 7.3 shows plenty of active additive left since 1.0 is low. The 56 ppm of sodium is consistent with the other sample of AutoZone oil you sent, so that element is an additive, not coolant. This oil can remain in use. Nice Toyota!

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil		UNIT / LOCATION AVERAGES					UNIVERSAL AVERAGES
	MI/HR on Unit							
	Sample Date	5/19/2018						
	Make Up Oil Added							
ALUMINUM	2	2						3
CHROMIUM	0	0						0
IRON	9	9						7
COPPER	15	15						2
LEAD	0	0						0
TIN	0	0						0
MOLYBDENUM	72	72						80
NICKEL	0	0						0
MANGANESE	3	3						0
SILVER	0	0						0
TITANIUM	0	0						2
POTASSIUM	0	0						1
BORON	181	181						35
SILICON	5	5						17
SODIUM	56	56						37
CALCIUM	1466	1466						1687
MAGNESIUM	526	526						351
PHOSPHORUS	813	813						658
ZINC	928	928						752
BARIUM	0	0						0

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°	59.8	56-63
	cSt Viscosity @ 100°C	10.16	9.1-11.3
	Flashpoint in °F	435	>375
	Fuel %	<0.5	<2.0
	Antifreeze %	0.0	0
	Water %	0.0	<0.1
	Insolubles %	0.1	<0.6
	TBN	7.3	>1.0
	TAN		
	ISO Code		

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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