



OIL REPORT

LAB NUMBER: L91295
 REPORT DATE: 1/9/2020
 CODE: 20/685

UNIT ID: 90 MIATA
 CLIENT ID: 155078
 PAYMENT: CC: Visa

UNIT	MAKE/MODEL: Mazda 1.6L 4-cyl	OIL TYPE & GRADE: Mobil 1 10W/30
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 1,000 Miles
	ADDITIONAL INFO: Built motor, ACC race bearings	

CLIENT	MARTIN ASTROMOWICZ	PHONE: (203) 645-6448
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COMMENTS MARTIN: Most metals are high. Built engines that are used for racing tend to wear a bit more than average, but there probably is some excess wear taking place in this 4-cylinder. Note coolant contaminating is evident in the potassium and sodium levels, so that's probably taking a toll on pistons (aluminum), cylinder/shafts (iron), and brass/bronze parts (copper, lead). Fuel might have impacted the viscosity, but just a trace amount isn't usually harmful otherwise. Keep oil changes to 1,000 miles or less until the coolant leak is addressed. The TBN was a strong 7.1 (1.0 is low).

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	1,000	UNIT / LOCATION AVERAGES						UNIVERSAL AVERAGES
	MI/HR on Unit	6,000							
	Sample Date	12/27/2019							
	Make Up Oil Added	0 qts							
ALUMINUM	8								3
CHROMIUM	1								1
IRON	20								9
COPPER	17								3
LEAD	8								1
TIN	1								0
MOLYBDENUM	70								115
NICKEL	0								0
MANGANESE	0								1
SILVER	0								0
TITANIUM	0								2
POTASSIUM	45								2
BORON	71								65
SILICON	22								12
SODIUM	57								37
CALCIUM	961								1912
MAGNESIUM	635								237
PHOSPHORUS	647								814
ZINC	711								952
BARIUM	0								0

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°F	55.2	58-68						
	cSt Viscosity @ 100°C	8.82	9.7-12.7						
	Flashpoint in °F	375	>375						
	Fuel %	TR	<2.0						
	Antifreeze %	POS	0.0						
	Water %	0.0	0.0						
	Insolubles %	0.3	<0.6						
	TBN	7.1	>1.0						
	TAN								
	ISO Code								

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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