



# OIL REPORT

LAB NUMBER:   
REPORT DATE: 4/15/2020  
CODE:

UNIT ID: 06 BMW  
CLIENT ID:   
PAYMENT:

UNIT

MAKE/MODEL: BMW 3.2L (S54B32) I-6  
FUEL TYPE: Gasoline (Unleaded)  
ADDITIONAL INFO: M3

OIL TYPE & GRADE: Red Line 5W/50  
OIL USE INTERVAL: 2,000 Miles

CLIENT

COMMENTS

JORGE: This oil has quite a bit of molybdenum and magnesium in it. The other elements are more or less the same (plus or minus a little) as previous samples. So how'd that affect the wear metals? It really didn't. Iron is a little lower than your previous samples, but this oil run was also shorter, and that probably has more to do with it than the brand of oil you're running. So what's the take-away point? That you're good to run whatever oil you want. Use whichever one is easier on the wallet -- they're all protecting your BMW about the same. The trace of fuel still is harmless.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	2,000	UNIT / LOCATION AVERAGES	3,000	4,000	5,000			UNIVERSAL AVERAGES
	MI/HR on Unit	112,000		108,000	104,000	95,000	70,000		
	Sample Date	4/4/2020		11/23/2019	5/31/2019	9/24/2018	4/12/2016		
	Make Up Oil Added	0 qts		0 qts	0 qts	0 qts			
	ALUMINUM	3		2	3	4	4		
	CHROMIUM	0		0	0	0	0		
	IRON	5		7	5	9	9		
	COPPER	2		9	6	12	13		
	LEAD	2		1	1	2	3		
ELEMENTS IN PARTS PER MILLION	TIN	0	UNIT / LOCATION AVERAGES	0	0	0	2		UNIVERSAL AVERAGES
	MOLYBDENUM	471		7	94	101	191		
	NICKEL	0		1	3	1	1		
	MANGANESE	0		0	0	1	1		
	SILVER	0		0	0	0	2		
	TITANIUM	0		9	0	1	42		
	POTASSIUM	0		1	2	0	4		
	BORON	67		51	28	31	31		
	SILICON	8		3	4	6	5		
	SODIUM	12		8	4	5	8		
	CALCIUM	2357		2543	3043	2962	2897		
	MAGNESIUM	418		18	10	11	22		
	PHOSPHORUS	1050		877	923	950	843		
	ZINC	1177		996	1066	1078	976		
	BARIUM	0		0	0	0	0		

Values  
Should Be\*

PROPERTIES	SUS Viscosity @ 210°F	87.6	72-92	92.5	85.4	90.7	95.2	
	cSt Viscosity @ 100°C	17.41	13.5-18.7	18.58	16.86	18.14	19.22	
	Flashpoint in °F	375	>375	370	360	375	375	
	Fuel %	TR	<2.0	TR	0.8	0.5	TR	
	Antifreeze %	0.0	0.0	0.0	0.0	0.0	0.0	
	Water %	0.0	<0.1	0.0	0.0	0.0	0.0	
	Insolubles %	0.1	<0.6	TR	0.1	0.2	0.1	
	TBN							
	TAN							
	ISO Code							

\* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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