



OIL REPORT

LAB NUMBER: M00376

UNIT ID: 05 M3

REPORT DATE: 2/10/2020

CLIENT ID: 90444

CODE: 20/32

PAYMENT: CC: AmEx

UNIT	MAKE/MODEL: BMW 3.2L (S54B32) I-6	OIL TYPE & GRADE: Castrol Edge 10W/60
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 2,067 Miles
	ADDITIONAL INFO:	

CLIENT	BRANDON SMITSKY	PHONE: (412) 877-6125
	3328 HARVARD RD	FAX:
	ROYAL OAK, MI 48073	ALT PHONE:
		EMAIL: bsmitsky89@gmail.com

COMMENTS	BRANDON: Your M3 produced another great report with this 2019 sample. Bearing wear typically shows first as lead and then as copper/tin, as the lead babbitt layer is worn down and the bronze underlay begins to wear. There's no indication of that happening your M3. Lead can't get any lower than 0 ppm, and copper is just half of universal averages at 4 ppm. From our view, your bearings look healthy and are showing no signs of trouble. The only highlight to speak of is for a slightly low flashpoint showing fuel at 0.5%, but that's harmless/from normal use. Excellent results!
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ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	2,067	UNIT / LOCATION AVERAGES	3,376	3,888	5,564	UNIVERSAL AVERAGES
	MI/HR on Unit	68,153		65,903	62,527	58,639	
	Sample Date	10/25/2019		11/14/2017	12/3/2016	11/15/2015	
	Make Up Oil Added	0.50 qts		0 qts	0.5 qts	0 qts	
	ALUMINUM	4	4	4	3	3	4
	CHROMIUM	1	1	1	0	0	0
	IRON	5	8	11	7	9	9
	COPPER	4	6	6	6	7	8
	LEAD	0	2	0	3	6	6
	TIN	0	0	0	0	0	0
	MOLYBDENUM	181	144	186	161	49	93
	NICKEL	0	0	1	0	0	0
	MANGANESE	0	1	1	1	1	1
	SILVER	0	0	0	0	0	0
	TITANIUM	40	32	44	35	10	12
	POTASSIUM	1	1	1	1	1	1
	BORON	55	47	48	44	40	59
	SILICON	3	4	5	4	5	5
	SODIUM	4	5	4	5	6	7
	CALCIUM	2755	2670	2901	2583	2439	2310
	MAGNESIUM	12	11	5	20	5	174
	PHOSPHORUS	812	819	874	778	811	846
	ZINC	920	946	1029	938	897	990
	BARIUM	0	0	0	0	0	0

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	94.0	80-100	93.0	87.6	86.4	
	cSt Viscosity @ 100°C	18.94	15.5-20.6	18.69	17.40	17.10	
	Flashpoint in °F	365	>375	400	385	390	
	Fuel %	0.5	<2.0	<0.5	<0.5	TR	
	Antifreeze %	0.0	0.0	0.0	0.0	0.0	
	Water %	0.0	<0.1	0.0	0.0	0.0	
	Insolubles %	0.1	<0.6	TR	0.2	TR	
	TBN						
	TAN						
	ISO Code						

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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