



# OIL REPORT

LAB NUMBER: [REDACTED] UNIT ID: [REDACTED]  
REPORT DATE: 3/18/2021 CLIENT ID: [REDACTED]  
CODE: 63/68 PAYMENT: [REDACTED]

## UNIT

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

OIL TYPE & GRADE: Liqui Moly GTI 10W/60  
OIL USE INTERVAL: 1,312 Miles

## CLIENT

CHANDLER HOCKERT

PHONE:

FAX:

ALT PHONE:

EMAIL: [REDACTED]

## COMMENTS

CHANDLER: Thanks for your service, and welcome home! You said you changed the oil early as a preventative measure since it was in the engine for 10 months. Next time, feel free to go by miles alone. Oil won't go bad from sitting in the engine, and modern ones like your S54 are sealed up well enough that contamination isn't usually a concern. Metals are all fine for a run of 1,312 miles and don't suggest any extra wear, and from what we're seeing all looks to be well. There's no detectible fuel or coolant in the oil, and the viscosity was in spec for 10W/60. Good report!

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	1,312	UNIT / LOCATION AVERAGES	3,600	3,500				UNIVERSAL AVERAGES
	MI/HR on Unit	116,716		115,400	112,000				
	Sample Date	3/7/2021		5/29/2019	2/17/2018	8/23/2017			
	Make Up Oil Added			1 qt	0.5 qts	1 qt			
	ALUMINUM	4		5	5	2			
	CHROMIUM	0		0	0	0			
	IRON	7		6	7	11			
	COPPER	10		16	17	14			
	LEAD	1		4	8	19			
	TIN	0		0	0	0			
ELEMENTS IN PARTS PER MILLION	MOLYBDENUM	203	UNIT / LOCATION AVERAGES	147	100	12			UNIVERSAL AVERAGES
	NICKEL	0		0	0	1			
	MANGANESE	1		1	0	0			
	SILVER	0		0	0	0			
	TITANIUM	0		0	0	1			
	POTASSIUM	0		0	2	2			
	BORON	37		30	50	53			
	SILICON	5		4	5	4			
	SODIUM	3		6	2	5			
	CALCIUM	3114		2910	2227	2339			
	MAGNESIUM	15		11	11	25			
	PHOSPHORUS	962		887	828	850			
	ZINC	1133		993	924	1020			
	BARIUM	0		0	0	0			

Values  
Should Be\*

PROPERTIES	SUS Viscosity @ 210°F	87.0	80-100	87.9	86.6	76.5		
	cSt Viscosity @ 100°C	17.26	15.5-20.6	17.48	17.15	14.63		
	Flashpoint in °F	405	>385	390	380	395		
	Fuel %	<0.5	<2.0	<0.5	<0.5	<0.5		
	Antifreeze %	0.0	0.0	0.0	0.0	0.0		
	Water %	0.0	0.0	0.0	0.0	0.0		
	Insolubles %	0.2	<0.6	0.1	0.2	0.2		
	TBN							
	TAN							
	ISO Code							

\* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

416 E. PETTIT AVE. FORT WAYNE, IN 46806 (260) 744-2380 www.blackstone-labs.com