



OIL REPORT

LAB NUMBER: F96032

UNIT ID:

REPORT DATE: 2/11/2014

CLIENT ID:

CODE: 20/75

PAYMENT:

UNIT

MAKE/MODEL: BMW 3.2L (S-54) Inline 6 Cylinder
FUEL TYPE: Gasoline (Unleaded)
ADDITIONAL INFO:

OIL TYPE & GRADE: Liqui Moly 10W/60
OIL USE INTERVAL: 6,106 Miles

CLIENT

COMMENTS

ROBERT: You used LiquiMoly oil this time around, and you'll note the drop in titanium and sodium. With that drop in sodium, we don't think there's any coolant in the oil. Plus bearing wear is looking better. It's hard to say that a change in oil brand alone caused the improvement in lead, but we'll keep an eye on it to make sure it stays low. Maybe your M Coupe saw some lighter use over the last 6,106 miles. Either way, we like the lower lead reading. Some fuel is still present, but it's not hurting anything. The low viscosity isn't a problem. Looking good at 74,866 total miles.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	6,106	UNIT / LOCATION AVERAGES	6,224	5,700				UNIVERSAL AVERAGES
	MI/HR on Unit	74,866		68,760	62,536				
	Sample Date	02/03/14		06/11/13	11/11/12				
	Make Up Oil Added	0 qts		0 qts	0 qts				
	ALUMINUM	3		4	3				
	CHROMIUM	0		0	0				
	IRON	8		6	7				
	COPPER	3		3	3				
	LEAD	4		10	10				
ELEMENTS IN PARTS PER MILLION	TIN	1	UNIT / LOCATION AVERAGES	0	0				UNIVERSAL AVERAGES
	MOLYBDENUM	33		118	1				
	NICKEL	0		1	0				
	MANGANESE	1		1	1				
	SILVER	0		0	0				
	TITANIUM	7		25	0				
	POTASSIUM	2		4	4				
	BORON	45		51	108				
	SILICON	4		5	4				
	SODIUM	38		124	122				
	CALCIUM	2296		2338	1633				
	MAGNESIUM	73		244	587				
	PHOSPHORUS	778		764	790				
	ZINC	915		966	1057				
	BARIUM	0		0	0				

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	74.4	80-95	87.0	86.5			
	cSt Viscosity @ 100°C	14.11	15.5-19.4	17.26	17.12			
	Flashpoint in °F	390	>395	385	375			
	Fuel %	TR	<2.0	0.5	TR			
	Antifreeze %	0.0	0.0	?	?			
	Water %	0.0	<0.1	0.0	0.0			
	Insolubles %	TR	<0.6	0.0	0.0			
	TBN				4.7			
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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