



P.O. NUMBER CC: Visa
CODE:

UNIT NUMBER MROADSTER
REPORT DATE: 9/17/04
LAB NUMBER: C27389

OIL REPORT

CLIENT	CONTACT:	PHONE: (734) 332-0344
	NAME: DANIEL W MCROBB	FAX:
	ADDRESS: 5917 LOCH LODEN DR	E-MAIL: dwm@mcplex.net
	DEXTER, MI 48130	

UNIT	EQUIPMENT MAKE: BMW	OIL USE INTERVAL: 4,312 Miles
	EQUIPMENT MODEL: 3.2L I-6 (S-54)	OIL TYPE & GRADE: Castrol TWS 10W/60 (Gas)
	FUEL TYPE: Gasoline (Unleaded)	MAKE-UP OIL ADDED: 0 qts
	ADDITIONAL INFO:	

COMMENTS DANIEL: The TBN for this second oil from your engine was 4.0, so the 4,312 miles you have had it in use hasn't hurt it much. You can see you new engine maturing in the wear metals, which have improved from the first sample, and generally, read at below average levels. We like the balance for your wear metals too, reading better than expected in the lower end parts, which are at the heart of the engine. Your oil use interval was just short of average for this type. As well as the engine is doing at 17,362 miles, you could go to 5,000 miles use for the next sample.

ELEMENTS IN PARTS PER MILLION	MI/HR ON OIL	4,312	UNIT / LOCATION AVERAGES	3,476						
	MI/HR ON UNIT	17,362		9,033						UNI VERSAL AVERAGES
	SAMPLE DATE	09/13/04		07/24/03						
	ALUMINUM	5	5	5						5
	CHROMIUM	0	1	1						1
	IRON	9	11	13						11
	COPPER	4	6	8						7
	LEAD	2	3	3						3
	TIN	1	2	2						1
	MOLYBDENUM	1	2	2						15
	NICKEL	0	1	1						1
	MANGANESE	3	5	7						2
	SILVER	0	0	0						0
	TITANIUM	0	0	0						0
	POTASSIUM	0	0	0						1
	BORON	116	110	103						87
	SILICON	6	6	5						6
	SODIUM	4	4	3						4
	CALCIUM	1454	1525	1596						1651
	MAGNESIUM	570	603	636						533
	PHOSPHORUS	854	859	864						797
	ZINC	1001	952	903						944
	BARIIUM	0	0	0						0

PROPERTIES	TEST	cST VISCOSITY @ 40 °C	SUS VISCOSITY @ 100 °F	VISCOSITY INDEX	cST VISCOSITY @ 100 °C	SUS VISCOSITY @ 210 °F	FLASHPOINT IN °F	FUEL %	ANTIFREEZE %	WATER %	INSOLUBLES %
	VALUES SHOULD BE					87-98	>375	<1.0	0	0.0	<0.6
	TESTED VALUES WERE					89.6	380	<0.5	0.0	0.0	0.2