



OIL REPORT

LAB NUMBER: F11387 UNIT ID: Z50555-TR
 REPORT DATE: 7/18/2012 CLIENT ID: 56835
 CODE: 20/75 PAYMENT: Prepaid

UNIT	MAKE/MODEL: Transmission Toyota, Automatic	OIL TYPE & GRADE: Mobil 1 ATF
	FUEL TYPE:	OIL USE INTERVAL: 13,000 Miles
	ADDITIONAL INFO: 1999 4-Runner	

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COMMENTS ROBERT: Thanks for the note. We hope that the high level of iron and the high insolubles in this sample are just because the sample got messed up coming from the end of the drain; otherwise, you've got a lot of iron in this oil, showing excessive wear at steel parts. Universal averages show typical wear for a Toyota transmission after ~31,000 miles of oil use, and your iron is about 15 times average on a shorter oil run. Even if insolubles made the oil abrasive, iron shouldn't be this bad. Resample in ~10,000 miles; if this was just a sampling error, it should look better next time.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	13,000	UNIT / LOCATION AVERAGES					UNIVERSAL AVERAGES
	MI/HR on Unit	140,470						
	Sample Date	07/15/12						
	Make Up Oil Added							
ALUMINUM	22	22					18	
CHROMIUM	1	1					0	
IRON	861	861					54	
COPPER	37	37					62	
LEAD	16	16					15	
TIN	2	2					2	
MOLYBDENUM	1	1					1	
NICKEL	1	1					1	
MANGANESE	5	5					1	
SILVER	0	0					0	
TITANIUM	0	0					0	
POTASSIUM	10	10					2	
BORON	160	160					71	
SILICON	13	13					19	
SODIUM	20	20					6	
CALCIUM	172	172					143	
MAGNESIUM	3	3					15	
PHOSPHORUS	546	546					317	
ZINC	57	57					50	
BARIUM	1	1					3	

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	49.4	43-51				
	cSt Viscosity @ 100°C	7.10	5.1-7.9				
	Flashpoint in °F	410	>355				
	Fuel %	-					
	Antifreeze %	-					
	Water %	0.0	0.0				
	Insolubles %	0.2	<0.1				
	TBN						
	TAN						
	ISO Code						

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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