



TRANSMISSION REPORT

LAB NUMBER: D95618
REPORT DATE: 7/25/2018
CODE: 22/16

UNIT ID: 15 F250
CLIENT ID: 28751
PAYMENT: CC: Visa

You'll need your client ID if you want to log on to www.blackstone-labs.net and view your reports.

This is a good place to identify things like bypass filtration, mods, etc.

UNIT	EQUIP. MAKE/MODEL: Transmission Ford R100	OIL TYPE & GRADE: Auto Transmission Fluid
	FUEL TYPE:	OIL USE INTERVAL:
	ADDITIONAL INFO: This truck is the love of my life. I will never sell it.	

CLIENT	OSCAR HUFF	PHONE: (828) 123-5897
	OSCAR'S WORKSHOP	FAX: (828) 123-1547
	132 PERIWINKLE RD	ALT PHONE: (828) 123-1564
	STE. 102	EMAIL: oscar@bellsouth.com
	SWANNANOVA, NC 18752	

COMMENTS

OSCAR: Things have definitely taken a turn for the worse. Iron and chrome are cautionary, showing a drastic increase in steel wear. that something is wrong. A brc consider further inspection. Keep the oil changes very short until you can determine what the problem is.

Sample report

the thumping noise is another sign of the issue. Change this oil and

The amount of oil you added between oil changes.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	607	UNIT / LOCATION AVERAGES				UNIVERSAL AVERAGES
	MI/HR on Unit	47,356					
	Sample Date	12/02/18					
	Make Up Oil	0 qts					
ALUMINUM	4	4	4			3	
CHROMIUM	7	4	1			1	
IRON	530	287	44			23	
COPPER	2	4	3			3	
LEAD	2	3	3			3	
TIN	0	1	0			1	
MOLYBDENUM	4	4	5			209	
NICKEL	1	1	1			0	
MANGANESE	0	0	0			0	
SILVER	0	0	0			0	
TITANIUM	0	0	0			0	
POTASSIUM	3	3	2			4	
BORON	0	2				1	
SILICON	9	14	1			11	
SODIUM	4	3	3			3	
CALCIUM	18	37	70			10	
MAGNESIUM	10	11	11			5	
PHOSPHORUS	364	325	289			316	
ZINC	12	15	18			12	
BARIIUM	0	0	0			2	

This is the average wear for this particular type of engine for you or your business.

This column shows average wear for all the samples we've seen from this type of tranny.

The additives in this column are a mix of all different types of oil, so you can't compare them to your sample.

Values Should Be*

From left to right, these are your past samples.

The tests in the Properties box look at the physical condition of the oil.

PROPERTIES	SUS Viscosity @ 210°F	45.5	69-80	45.9		
	cSt Viscosity @ 100°C	11.74	12.7-15.5	11.85		
	Flashpoint in °F	405	>410	390		
	Fuel %	0.5	<2.0	-		
	Antifreeze %	0.0	0.0	-		
	Water %	0.0	0.0	0.0		
	Insolubles %	0.3	<0.6	0.3		
	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



Averages: Both the universal and unit averages are running averages and change with the number of samples we analyze.

Elements: Elements are quantified in the oil at parts per million levels (PPM). This list shows the most common sources of the elements in manual or automatic transmission oil. Following each element is a description of where it comes from. They are grouped by category.

Wear Metals

Aluminum: Housing, oil pump, bearings, gear and vane pumps

Chromium: Ball and roller bearings, alloy of steel parts like gears

Iron: Gears, bearings, shafts, some cases, clutch plates

Copper: Bronze bushings, oil cooler oxides, clutch plates, brass fittings

Lead: Residual gear marking compound, alloy of bronze

Tin: Some bearing cages, alloy of bronze

Nickel: Clutch bands, gear/shaft steel alloy

Silver: Some soft friction bearings, Allison needle bearings

Manganese: Alloy of steel

Titanium: Trace wear metal

Contaminants

Potassium: Antifreeze

Sodium: Antifreeze, additive in some engine oils

Silicon: Airborne dirt, sealers, gaskets, sand-casted parts, and spray lubricants, antifreeze

Oil Additives

Boron

Calcium

Magnesium

Phosphorus

Zinc

Barium

Physical properties

Viscosity/Flashpoint: If a contaminant is present in the oil, the Viscosity and Flashpoint will often be lower than stated in the "Values Should Be" line. A viscosity reading high or low may show oil oxidation.

Antifreeze %: Indicates the amount of antifreeze found in the oil. A question mark means we found possible traces of coolant, but not enough to definitively say it's there.

Water %: Indicates the amount of water found in the oil.

Insolubles %: Insolubles are solid materials present in the oil. They are typically free carbon from the oxidation of the oil itself, and accumulated metal in the system.