



LAB NUMBER: REPORT DATE: 8/9/2024 CODE: 20/88 UNIT ID: CLIENT ID:

PAYMENT:

EQUIP. MAK FUEL TYPE: ADDITIONAL

EQUIP. MAKE/MODEL: Transmission ZF 8HP

OIL TYPE & GRADE: OIL USE INTERVAL: ZF LifeGuard 8 19,860 Miles

ADDITIONAL INFO: 8HP45

PHONE: FAX: ALT PHONE:

EMAIL:

COMMENTS

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Thanks for the letter. Because 4.5L out of the 8.8L capacity was drained out, about half of the metal in the original oil carried through the drain-and-fill. With that, we're not too concerned the wear metals didn't decrease more than they did. However, aluminum didn't decrease as much as iron and copper. This aluminum level isn't an immediate concern —if there was a mechanical problem, it'd probably be a lot higher than this—but check back on that wear metal next service. Only a trace (TR) of insolubles was noted this time. Good report, all told.

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	MI/HR on Oil	19,860	UNIT / LOCATION AVERAGES	60,245		
	MI/HR on Unit	80,105		60,245		UNIVERSAL
ER MILLION	Sample Date	1/9/2024		2/22/2022		AVERAGES
	Make Up Oil Added					
	ALUMINUM	44	48	51		40
	CHROMIUM	0	0	0		0
	IRON	173	201	228		215
	COPPER	103	126	149		82
	LEAD	0	1	1		1
Δ	TIN	6	8	9		5
ITS IN PARTS	MOLYBDENUM	0	0	0		0
	NICKEL	0	0	0		0
	MANGANESE	2	2	2		3
	SILVER	0	0	0		0
	TITANIUM	0	0	0		0
	POTASSIUM	3	4	5		5
Ξ	BORON	146	144	141		132
EMEN	SILICON	12	13	13		14
Ξ	SODIUM	6	7	8		10
1	CALCIUM	550	567	584		533
	MAGNESIUM	2	3	3		4
	PHOSPHORUS	497	531	564		552
	ZINC	6	8	9		13
	BARIUM	0	0	0		0
			Values			

Values

Should Be*

Viscosity @ 210°F	44.5	42-51	43.2				
/iscosity @ 100°C	5.56	4.8-7.9	5.17				
hpoint in °F	390	>335	400				
%	-		-				
reeze %	0.0		0.0				
er %	0.0	0.0	0.0				
ubles %	TR	<0.1	0.3				
Code							
	/iscosity @ 100°C npoint in °F % reeze % r % ubles %	/iscosity @ 100°C 5.56 npoint in °F 390 % - reeze % 0.0 r % 0.0 ubles % TR	/iscosity @ 100°C 5.56 4.8-7.9 ppoint in °F 390 >335 % - - reeze % 0.0 - r % 0.0 0.0 ubles % TR <0.1	riscosity @ 100°C 5.56 4.8-7.9 5.17 ppoint in °F 390 >335 400 % - - - reeze % 0.0 0.0 0.0 r % 0.0 0.0 0.0 ubles % TR <0.1	fiscosity @ 100°C 5.56 4.8-7.9 5.17 ppoint in °F 390 >335 400 % - - reeze % 0.0 0.0 r % 0.0 0.0 ubles % TR <0.1	Iscosity @ 100°C 5.56 4.8-7.9 5.17 appoint in °F 390 >335 400 % - - reeze % 0.0 0.0 r % 0.0 0.0 ubles % TR <0.1	Iscosity @ 100°C 5.56 4.8-7.9 5.17 appoint in °F 390 >335 400 % - - - reeze % 0.0 0.0 - r % 0.0 0.0 - ubles % TR <0.1

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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LIABILITY LIMITED TO COST OF ANALYSIS