LIEBHERR

CONSTRUCTION EQUIPMENT

LIEBHERR L586 068244 - Transmission (Manual)

Sample No: LH

Oil Type: PETRO CANADA TRAXON 75W90 SYNTHETIC

CONTAMINATION Silicon	_					
Sample Date	U SAM	PLE INFO	RMATION			
Sample Date	Sample Number		LH	LH0265761	LH0250038	LH0150846
Machine Hours 0 5330 4345 3398 Oil Hours 0 0 0 0 Oil Changed Changed Not Changd Normal Normal Normal Normal Normal Normal ABNORMAL Oil CONDITION Visc @ 40°C cSt 42.1 45.2 37.0 37.7 CONTAMINATION Silicon ppm 6 6 5 6 Sodium ppm 6 6 5 6 Sodium ppm 6 6 5 6 Potassium ppm 0 6 5 6 WEAR MET ALS Ion 7 6 10 6 6 Very MET ALS Ion 7 6 10 10 6 Copper ppm 1 -1 1 1 1 1	•		15 Sep 2023	21 Aug 2023	28 May 2023	30 Mar 2023
Oil Changed Changed Not Changed Approximation 37.7 WEAR METALS Iron ppm 0 6 6 6 5 6 6 Possion 6 9 9 9 7 9 0 7 0 6 0 0 0 0 0 0 0 0 0 0 0				-		3398
Oil CONDITION						
Oil CONDITION	Oil Changed		Changed	Not Changd	Changed	Not Changd
OIL CONDITION CONTAMINATION Silicon ppm 8 9 9 7 Sodium ppm 6 6 5 6 Potassium ppm 1 1 2 2 WEAR METALS Iron 7 6 10 6 Copper ppm 1 <1 1 1 Lead ppm 0 0 0 <1 1 1 Lead ppm 0 0 0 <1 0 1 Lead ppm 0 0 0 0 0 0 Aluminum ppm 0 0 0 0 0 0 Maluminum ppm 0 0 0 0 0 0 Molybdenum ppm 0 0 0 0 0 0 <	-			_		
Visc @ 40°C	<u> </u>					
CONTAMINATION Silicon	OIL	ONDITIO	N			
Silicon	Visc @ 40°C	cSt	42.1	45.2	37.0	37.7
Silicon	-4					
Sodium	CON	TAMINA'	TION			
Sodium	Silicon	ppm	0 8	0 9	O 9	0.7
Potassium ppm 1 1 2 2 WEAR METALS Iron ppm 7 6 10 6 Copper ppm 1 <1	Sodium					
WEAR METALS Iron ppm 7 6 10 6 Copper ppm 1 <1	Potassium				_	_
Iron						
Copper ppm 1 <1 1 1 1 1 1 1 1 1 1 1 1 1 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	₩EA	R METAL	.S			
Lead ppm ○ 0 ○ 0 ○ 1 ○ 1 ○ 1 ○ 1 ○ 1 ○ 0 <td< td=""><td>Iron</td><td>ppm</td><td>7</td><td>O 6</td><td>10</td><td>O 6</td></td<>	Iron	ppm	7	O 6	10	O 6
Tin ppm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Copper	ppm	1	O <1	1	1
Aluminum	Lead	ppm	0	O 0	O <1	 <1
Chromium ppm 0 0 0 0 Molybdenum ppm 0 0 0 0 0 Nickel ppm 0 0 0 1 0 0 Titanium ppm 0 0 0 0 0 0 0 Silver ppm 0 0 0 0 0 0 0 0 0 Manganese ppm 0	Tin	ppm	0	O 0	0	0
Molybdenum ppm 0 0 <1 0 Nickel ppm 0 <1 <1 <1 Titanium ppm 0 0 <1 <1 Silver ppm <1 0 0 0 Manganese ppm 0 <1 <1 <1 Vanadium ppm 0 0 0 0 ADDITIVES Calcium ppm 3829 3795 3838 3796 Magnesium ppm 11 11 12 11 Zinc ppm 1518 1511 1499 1513 Phosphorus ppm 1229 1325 1321 1308 Barium ppm <1 0 0 0 0	Aluminum	ppm	0 <1	O 1	1	O <1
Nickel ppm 0 <1 <1 <1 Titanium ppm 0 0 <1	Chromium	ppm	0	O 0	O 0	0
Titanium ppm 0 0 <1	Molybdenum	ppm	0	O 0	O <1	0
Silver ppm	Nickel	ppm	0	O <1	O <1	O <1
Manganese ppm ○ 0 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <1 ○ <	Titanium	ppm	0	0	<1	<1
Vanadium ppm 0 0 0 0 ADDITIVES Calcium ppm 3829 3795 3838 3796 Magnesium ppm 11 11 12 11 Zinc ppm 1518 1511 1499 1513 Phosphorus ppm 1229 1325 1321 1308 Barium ppm <1 0 0 0	Silver	ppm	() <1	O 0	O 0	0
ADDITIVES Calcium ppm 3829 3795 3838 3796 Magnesium ppm 11 11 12 11 Zinc ppm 1518 1511 1499 1513 Phosphorus ppm 1229 1325 1321 1308 Barium ppm <1 0 0 0	Manganese	ppm	0	O <1	O <1	O <1
Calcium ppm 3829 3795 3838 3796 Magnesium ppm 11 11 12 11 Zinc ppm 1518 1511 1499 1513 Phosphorus ppm 1229 1325 1321 1308 Barium ppm <1 0 0 0	Vanadium	ppm	0	0	0	0
Magnesium ppm 11 11 12 11 Zinc ppm 1518 1511 1499 1513 Phosphorus ppm 1229 1325 1321 1308 Barium ppm <1	ADD	ITIVES				
Zinc ppm 1518 1511 1499 1513 Phosphorus ppm 1229 1325 1321 1308 Barium ppm <1 0 0 0	Calcium	ppm	3829	3795	3838	○ 3796
Phosphorus ppm 1229 1325 1321 1308 Barium ppm <1 0 0 0	Magnesium	ppm	11	O 11	O 12	O 11
Barium	Zinc	ppm	1518	1511	1499	O 1513
	Phosphorus	ppm	1229	O 1325	O 1321	1308
Boron ppm 110 111 105	Barium	ppm	○ <1	0	O 0	O 0
	Boron	ppm	110	O 111	105	103



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Diagnosis

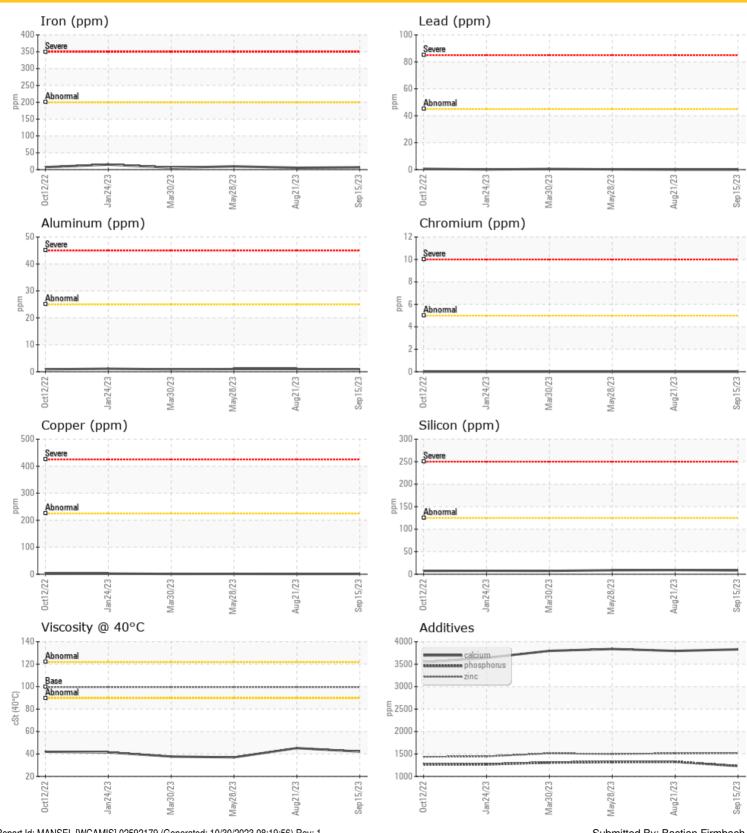
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA TRAXON 75W90 SYNTHETIC, however, a fluid match indicates that this fluid is SAE 75W80 Wet Brake Transaxle Oil. Please confirm the fluid type and grade on your next sample.All component wear rates are normal. There is no indication of any contamination in the fluid. Viscosity of sample indicates oil is within SAE 75W80 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the fluid is acceptable for the time in service.

Depot:MANSELUnique No:5669258Signed:Kevin MarsonReport Date:27 Oct 2023





GRAPHS



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Submitted By: Bastian Firmbach