

Machine Id

# VOLVO L70H 622991

Front Axle

# VOLVO SUPER WET BRAKE TRANSAXLE OIL WB102 (--- GAL)

## RECOMMENDATION

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

#### **WEAR**

All component wear rates are normal.

### CONTAMINATION

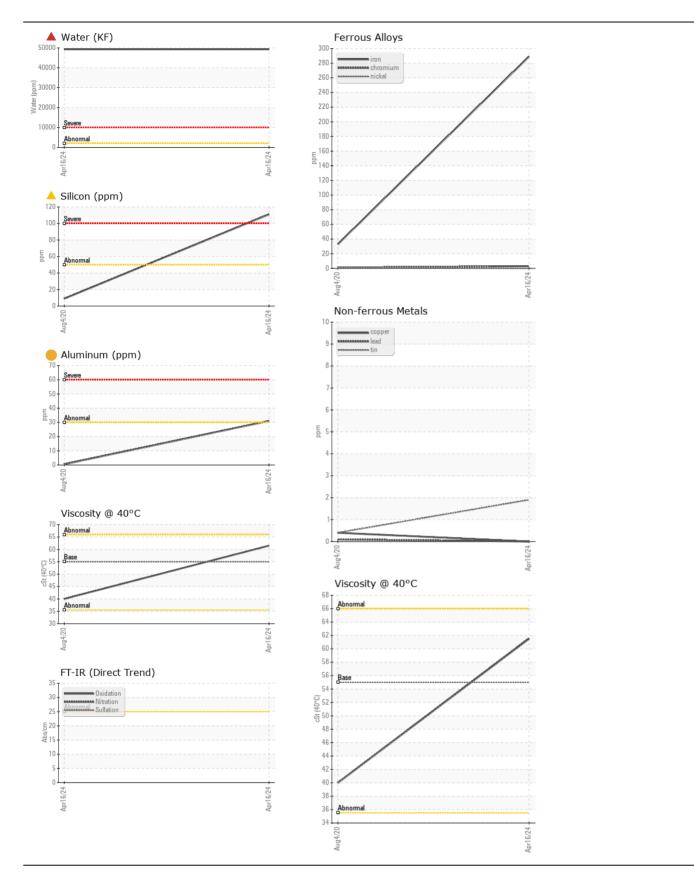
Appearance is milky. There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0001467	VCP283801	
Sample Date		Client Info		16 Apr 2024	04 Aug 2020	
Machine Age	hrs	Client Info		11074	4217	
Oil Age	hrs	Client Info		2500	0	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	Not Changd	
Filter Changed		Client Info		N/A	N/A	
Sample Status				SEVERE	NORMAL	
lron		ASTM D5185m	. 500	000	00	
Iron	ppm		>500	289	33	
Chromium	ppm	ASTM D5185m	>20	3	<1	
Nickel	ppm	ASTM D5185m	>10	0	<1	
Titanium	ppm	ASTM D5185m		3	0	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>30	931	<1	
Lead	ppm	ASTM D5185m	>50	0	<1	
Copper	ppm	ASTM D5185m	>120	0	<1	
Tin	ppm	ASTM D5185m	>20	2	<1	
Vanadium	ppm	ASTM D5185m		0	0	
White Metal	scalar	*Visual	NONE	NONE	LIGHT	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	maa	ASTM D5185m	>50	▲ 111	9	
Silicon Potassium	ppm mag	ASTM D5185m ASTM D5185m	>50 >20		9 <1	
Potassium	ppm	ASTM D5185m	>20	9	9 <1 	
Potassium Water	ppm %	ASTM D5185m ASTM D6304	>20 >0.2	9 ▲ 4.93	<1	
Potassium Water ppm Water	ppm % ppm	ASTM D5185m ASTM D6304 ASTM D6304	>20 >0.2 >2000	9 ▲ 4.93 ▲ 49300	<1  	
Potassium Water ppm Water Silt	ppm % ppm scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual	>20 >0.2 >2000 NONE	9 ▲ 4.93 ▲ 49300 NONE	<1  NONE	
Potassium Water ppm Water Silt Debris	ppm % ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual	>20 >0.2 >2000 NONE NONE	9 4.93 49300 NONE NONE	<1  NONE LIGHT	
Potassium Water ppm Water Silt Debris Sand/Dirt	ppm % ppm scalar scalar scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual	>20 >0.2 >2000 NONE NONE NONE	9 4.93 49300 NONE NONE NONE	<1  NONE LIGHT NONE	  
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance	ppm % ppm scalar scalar scalar scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual	>20 >0.2 >2000 NONE NONE NONE NORML	9 4.93 49300 NONE NONE NONE NONE	<1  NONE LIGHT NONE NORML	   
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor	ppm % ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual	>20 >0.2 >2000 NONE NONE NONE NORML	9 4.93 49300 NONE NONE NONE MILKY NORML	<1  NONE LIGHT NONE NORML NORML	    
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance	ppm % ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual	>20 >0.2 >2000 NONE NONE NONE NORML	9 4.93 49300 NONE NONE NONE NONE	<1  NONE LIGHT NONE NORML	    
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor	ppm % ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual	>20 >0.2 >2000 NONE NONE NONE NORML	9 4.93 49300 NONE NONE NONE MILKY NORML	<1  NONE LIGHT NONE NORML NORML	    
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm % ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual	>20 >0.2 >2000 NONE NONE NONE NORML	9 ▲ 4.93 ▲ 49300 NONE NONE NONE ● MILKY NORML ▲ 0.2%	<1  NONE LIGHT NONE NORML NORML NEG	    
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm % ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >0.2 >2000 NONE NONE NONE NORML	9 4.93 49300 NONE NONE NONE MILKY NORML 0.2% 12	<1  NONE LIGHT NORML NORML NEG 5	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >0.2 >2000 NONE NONE NONE NORML	9 ▲ 4.93 ▲ 49300 NONE NONE MILKY NORML ▲ 0.2% 12 136	<1  NONE LIGHT NORML NORML NEG 5 109	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >0.2 >2000 NONE NONE NONE NORML	9 ▲ 4.93 ▲ 49300 NONE NONE NONE MILKY NORML ▲ 0.2% 12 136 0	<1  NONE LIGHT NORML NORML NEG 5 109 0	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm % ppm scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.2 >2000 NONE NONE NONE NORML	9 ▲ 4.93 ▲ 49300 NONE NONE MILKY NORML ▲ 0.2% 12 136 0 1	<1  NONE LIGHT NORML NORML NORML NEG 5 109 0 2	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Molybdenum	ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.2 >2000 NONE NONE NONE NORML	9 4.93 49300 NONE NONE NONE 0.2% 12 136 0 1 6	<1 NONE LIGHT NONE NORML NORML NEG 5 109 0 2 3	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm % ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.2 >2000 NONE NONE NONE NORML	9 ▲ 4.93 ▲ 49300 NONE NONE NONE MILKY NORML ▲ 0.2% 12 136 0 1 6 15	<1  NONE LIGHT NORML NORML NEG 5 109 0 2 3 3 7	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm % ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.2 >2000 NONE NONE NONE NORML	9 ▲ 4.93 A 49300 NONE NONE NONE MILKY NORML ▲ 0.2% 12 136 0 1 6 15 3868	<1 NONE LIGHT NONE NORML NORML NORML 5 109 0 2 3 7 3600	
Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm % scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.2 >2000 NONE NONE NONE NORML	9 4.93 A 49300 NONE NONE NONE 0.2% 12 136 0 1 6 15 3868 1353	<1 NONE UIGHT NONE NORML NORML NEG 5 109 0 2 3 7 3600 1280	

#### **FLUID CONDITION**

The oil is no longer serviceable due to the presence of contaminants.

Submitted By: Service - Alex Anderson



MCCLUNG-LOGAN EQUIPMENT CO - RICHMOND Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received 1345 MOUNTAIN ROAD : ML0001467 : 19 Apr 2024 Lab Number : 06154972 Tested : 24 Apr 2024 GLEN ALLEN, VA Diagnosed : 24 Apr 2024 - Jonathan Hester US 23060 Unique Number : 10990395 Test Package : CONST ( Additional Tests: FT-IR, KF ) Contact: KYLE RATLIFFE Certificate L2367 KRATLIFFE@MCCLUNG-LOGAN.COM To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: F: (804)266-1611 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: Service - Alex Anderson Page 2 of 2