

WEAR SEVERE CONTAMINATION SEVERE FLUID CONDITION NORMAL

Area [W02008491] Machine Id VOLVO EC350 314266 Component Rear Left Final Drive Fluid MOBIL MOBILUBE HD 85W140 (2 GAL)

RECOMMENDATION

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 advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. (Customer Sample Comment: W02008491)

WEAR

Gear wear is indicated.

CONTAMINATION

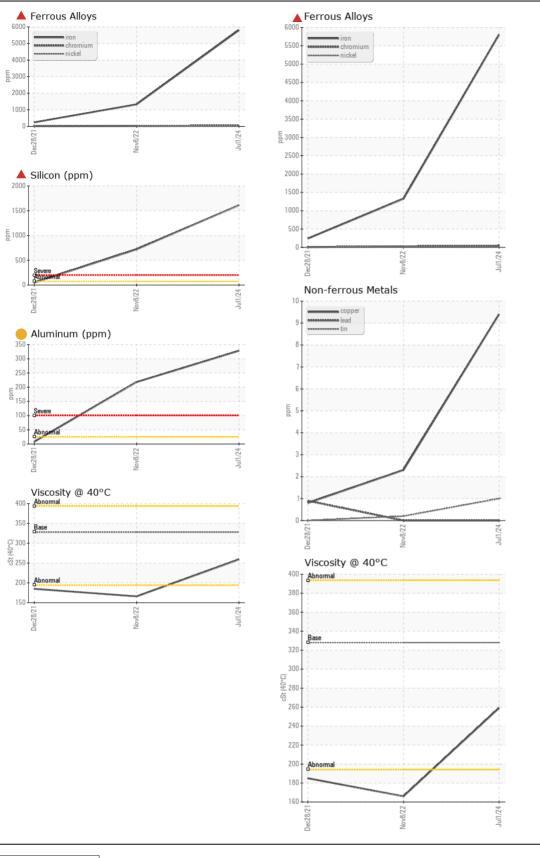
Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress.

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0002363	VCP386332	VCP326977
Sample Date		Client Info		01 Jul 2024	08 Nov 2022	28 Dec 2021
Machine Age	hrs	Client Info		3999	1987	493
Oil Age	hrs	Client Info		2012	1000	493
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	NORMAL
Iron	ppm	ASTM D5185m	>500	▲ 5804	▲ 1325	241
Chromium	ppm	ASTM D5185m	>10	4 5	2 5	6
Nickel	ppm	ASTM D5185m	>10	4	4	<1
Titanium	ppm	ASTM D5185m		32	14	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	328	218	8
Lead	ppm	ASTM D5185m	>25	0	0	<1
Copper	ppm	ASTM D5185m	>50	9	2	<1
Tin	ppm	ASTM D5185m	>10	1	<1	0
Vanadium	ppm	ASTM D5185m		1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal Silicon	scalar ppm	*Visual ASTM D5185m	NONE	NONE	NONE 721	NONE 48
Silicon	ppm	ASTM D5185m	>75	1 612	A 721	48
Silicon Potassium	ppm	ASTM D5185m ASTM D5185m	>75 >20	▲ 1612 94	▲ 721 56	48 3
Silicon Potassium Water	ppm ppm	ASTM D5185m ASTM D5185m WC Method	>75 >20 >0.2	▲ 1612 94 NEG	▲ 721 56 NEG	48 3 NEG
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185m ASTM D5185m WC Method *Visual	>75 >20 >0.2 NONE	 1612 94 NEG NONE 	 721 56 NEG NONE 	48 3 NEG NONE
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>75 >20 >0.2 NONE NONE	 1612 94 NEG NONE NONE 	 721 56 NEG NONE NONE 	48 3 NEG NONE NONE
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual	>75 >20 >0.2 NONE NONE NONE	 1612 94 NEG NONE NONE NONE 	 721 56 NEG NONE NONE NONE 	48 3 NEG NONE NONE NONE
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>75 >20 >0.2 NONE NONE NONE NORML	 1612 94 NEG NONE NONE NONE NORML 	 721 56 NEG NONE NONE NONE NONE NORML 	48 3 NEG NONE NONE NONE NORE
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>75 >20 >0.2 NONE NONE NONE NORML NORML	 1612 94 NEG NONE NONE NORE NORML NORML 	 721 56 NEG NONE NONE NONE NORE NORML NORML 	48 3 NEG NONE NONE NONE NORML NORML
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 >0.2 NONE NONE NONE NORML NORML	 1612 94 NEG NONE NONE NORE NORML NORML NEG 	 721 56 NEG NONE NONE NORE NORML NORML NEG 	48 3 NEG NONE NONE NORML NORML NEG
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 1612 94 NEG NONE NONE NORML NORML NEG 44 	 721 56 NEG NONE NONE NORML NORML NEG 10 	48 3 NEG NONE NONE NORML NORML NEG 2
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 1612 94 NEG NONE NONE NORML NORML NEG 44 67 	 721 56 NEG NONE NONE NORML NORML NEG 10 98 	48 3 NEG NONE NONE NORML NORML NEG 2 3
Silicon Potassium 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 D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 1612 94 NEG NONE NONE NORML NORML NEG 44 67 1 	 721 56 NEG NONE NONE NORML NORML NORML NEG 10 98 0 	48 3 NEG NONE NONE NORML NORML NEG 2 3 0
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 1612 94 NEG NONE NONE NORML NORML NEG 44 67 1 16 	 721 56 NEG NONE NORML NORML NEG 10 98 0 15 	48 3 NEG NONE NONE NORML NORML NEG 2 3 0 <1
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 1612 94 NEG NONE NONE NORML NORML NEG 44 67 1 16 38 	 721 56 NEG NONE NONE NORML NORML NEG 10 98 0 15 13 	48 3 NEG NONE NONE NORML NORML NEG 2 3 0 <1 4
Silicon Potassium 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 ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 1612 94 NEG NONE NONE NORML NORML NEG 44 67 1 16 38 143 	 721 56 NEG NONE NONE NORML NORML NORML 10 98 0 15 13 151 	48 3 NEG NONE NONE NORML NORML NEG 2 3 0 <1 4 2
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 1612 94 NEG NONE NORE NORML NORML NEG 44 67 1 16 38 143 340 	 721 56 NEG NONE NONE NORML NORML NEG 10 98 0 15 13 151 522 	48 3 NEG NONE NONE NORML NEG 2 3 0 <1 4 2 17
Silicon Potassium 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 D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 1612 94 NEG NONE NONE NORML NORML NEG 44 67 1 16 38 143 340 685 	 721 56 NEG NONE NONE NORML NORML NORML 10 98 0 15 13 151 522 800 	48 3 NEG NONE NONE NORML NORML NEG 2 3 0 2 3 0 4 2 1 7 4 2 17 300

Submitted By: DARRELL ANDES



MCCLUNG-LOGAN EQUIPMENT CO - MANASSAS Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received 8450 QUARRY ROAD : ML0002363 : 02 Jul 2024 Lab Number : 06226835 Tested MANASSAS, VA : 03 Jul 2024 : 05 Jul 2024 - Don Baldridge Unique Number : 11110328 US 20110 Diagnosed Test Package : CONST Contact: MIKE MAYHUGH Certificate L2367 MMAYHUGH@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: (703)393-7344 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (703)393-7844