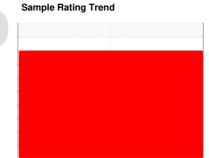


PROBLEM SUMMARY



DIRT





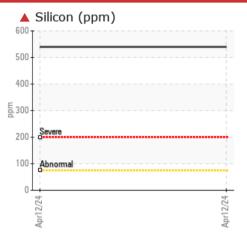
[W02008168] VOLVO EC350 314516

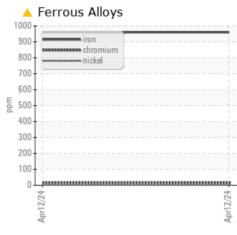
Right Final Drive

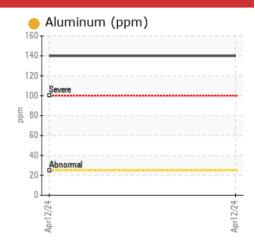
Fluid

VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (2 GAL)

COMPONENT CONDITION SUMMARY







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 recommend an early resample to monitor this condition. (Customer Sample Comment: W02008168)

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE				
Iron	ppm	ASTM D5185m	>500	4 960				
Chromium	ppm	ASTM D5185m	>10	<u> </u>				
Titanium	ppm	ASTM D5185m		<u> </u>				
Silicon	ppm	ASTM D5185m	>75	540				

Customer Id: VOLVO0002 Sample No.: ML0001135 Lab Number: 06150768 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED A	ACTIONS			
Action	Status	Date	Done By	Description
Resample			?	We recommend an early resample to monitor this condition.
Check Dirt Access			?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS



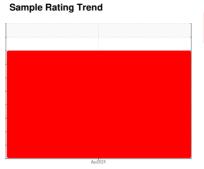




[W02008168] VOLVO EC350 314516

Right Final Drive

VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (2 GAL)





DIAGNOSIS

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 recommend an early resample to monitor this condition. (Customer Sample Comment: W02008168)

Gear wear is indicated.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

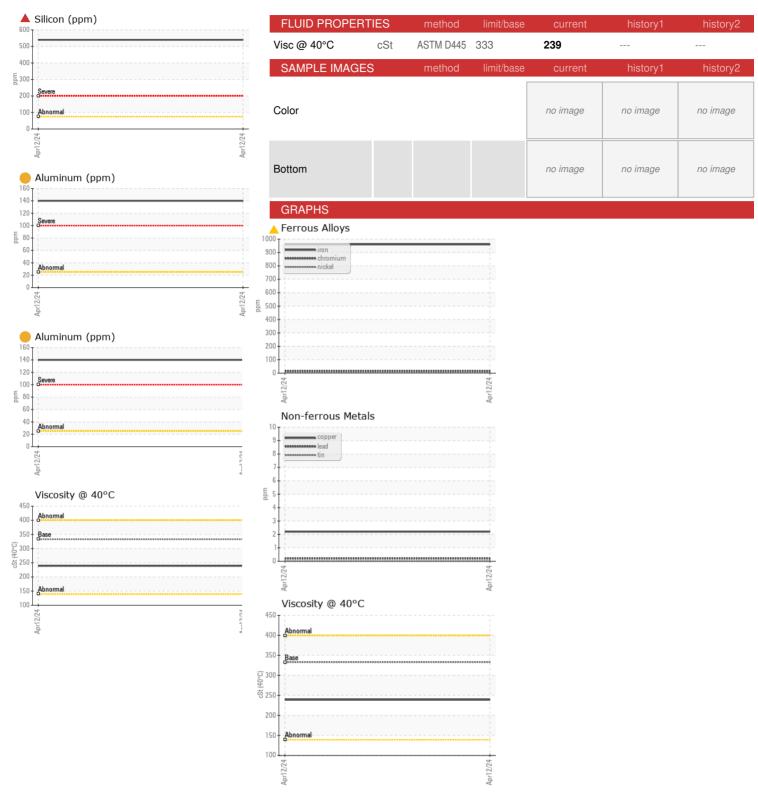
Fluid Condition

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

Sample Number Client Info ML.0001135	ль оэчч-140 GL-5 (2	. GAL)			Apr2U24		
Sample Date Client Info 12 Apr 2024	SAMPLE INFORMA	ATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 1942 Ol Age hrs Client Info 500 Oli Changed Oli Changed <	Sample Number		Client Info		ML0001135		
Oil Age hrs Client Info 500	Sample Date		Client Info		12 Apr 2024		
Contamination	Machine Age	hrs	Client Info		1942		
CONTAMINATION method limit/base current history1 hist	Oil Age	hrs	Client Info		500		
WEAR METALS	Oil Changed		Client Info		Changed		
Water WC Method >0.2 NEG	-				SEVERE		
WEAR METALS method limit/base current history1 history1 Irin ppm ASTM D5185m >5000 ▲ 960 Chromium ppm ASTM D5185m >10 ▲ 15 Nickel ppm ASTM D5185m >10 2 Silver ppm ASTM D5185m >0 Aluminum ppm ASTM D5185m >25 140 Lead ppm ASTM D5185m >50 2 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 0 Cadmium ppm ASTM D5185m >10 0 Barium ppm ASTM D5185m 0.0	CONTAMINATION		method	limit/base	current	history1	history2
Description	Water		WC Method	>0.2	NEG		
Description	WEAR METALS		method	limit/base	current	history1	history2
ASTM D5185m	ron	ppm	ASTM D5185m	>500	4 960		
ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Document Document	Chromium	ppm	ASTM D5185m	>10	<u></u> 15		
ASTM D5185m D	Nickel	ppm	ASTM D5185m	>10	2		
Aluminum	Titanium	ppm	ASTM D5185m		<u> </u>		
Astronometric Astronometri	Silver	ppm	ASTM D5185m		0		
December December			ASTM D5185m	>25	<u> </u>		
Description					<1		
Tin			ASTM D5185m	>50	2		
Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history Barium ppm ASTM D5185m 0.0 3 Barium ppm ASTM D5185m 0.0 3 Molybdenum ppm ASTM D5185m 0.0 9 Manganese ppm ASTM D5185m 0.0 9 Magnesium ppm ASTM D5185m 39 15 Calcium ppm ASTM D5185m 39 146 Phosphorus ppm ASTM D5185m 920 855 Zinc ppm ASTM D5185m 20 855 Contactium ppm ASTM D5185m 20179 44561				>10	0		
ADDITIVES					<1		
Boron					0		
### ASTM D5185m 0.0 3 -	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0.9 3 Manganese ppm ASTM D5185m 0.0 9 Magnesium ppm ASTM D5185m 39 15 Calcium ppm ASTM D5185m 920 855 Phosphorus ppm ASTM D5185m 920 855 Zinc ppm ASTM D5185m 920 855 Zinc ppm ASTM D5185m 920 44561 Sulfur ppm ASTM D5185m >75 4540 CONTAMINANTS method limit/base current history1 history1 history1 Silicon ppm ASTM D5185m >75 4540 Potassium ppm ASTM D5185m >20 22 VISUAL method	Boron	ppm	ASTM D5185m	111	122		
Manganese ppm ASTM D5185m 0.0 9 Magnesium ppm ASTM D5185m 39 15 Calcium ppm ASTM D5185m 93 146 Phosphorus ppm ASTM D5185m 920 855 Zinc ppm ASTM D5185m 104 59 Sulfur ppm ASTM D5185m 20179 44561 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >75 4540 Sodium ppm ASTM D5185m >20 22 Potassium ppm ASTM D5185m >20 22 VISUAL method limit/base current history1 history1 Vellow Metal scalar *Visual	Barium	ppm	ASTM D5185m	0.0	3		
Magnesium ppm ASTM D5185m 39 15 Calcium ppm ASTM D5185m 93 146 Phosphorus ppm ASTM D5185m 920 855 Zinc ppm ASTM D5185m 104 59 Sulfur ppm ASTM D5185m 20179 44561 CONTAMINANTS method limit/base current history1 history1 history1 Sodium ppm ASTM D5185m >75 ▲ 540 Potassium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 22 VISUAL method limit/base current history1 history2 Visual NONE NONE Viellow Metal scalar *Visual NONE NONE	Molybdenum	ppm	ASTM D5185m	0.9	3		
Calcium ppm ASTM D5185m 93 146 Phosphorus ppm ASTM D5185m 920 855 Zinc ppm ASTM D5185m 104 59 Sulfur ppm ASTM D5185m 20179 44561 CONTAMINANTS method limit/base current history1 history1 Solicon ppm ASTM D5185m 3 Potassium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 22 VISUAL method limit/base current history1 history2 Visual NONE NONE Viellow Metal scalar *Visual NONE NONE <td>Manganese</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0.0</td> <td>9</td> <td></td> <td></td>	Manganese	ppm	ASTM D5185m	0.0	9		
Phosphorus ppm ASTM D5185m 920 855 Zinc ppm ASTM D5185m 104 59 Sulfur ppm ASTM D5185m 20179 44561 CONTAMINANTS method limit/base current history1 history1 Solicon ppm ASTM D5185m >75 ▲ 540 Soldium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 22 VISUAL method limit/base current history1 history VISUAL method limit/base current history1 history VISUAL method limit/base current history1 history VISUAL MONE NONE Visual NONE NONE Poebris scalar	Magnesium	ppm	ASTM D5185m	39	15		
Zinc	Calcium	ppm	ASTM D5185m	93	146		
Gulfur ppm ASTM D5185m 20179 44561 CONTAMINANTS method limit/base current history1 history1 Golium ppm ASTM D5185m >75 ▲ 540 Godium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 22 VISUAL method limit/base current history1 history1 White Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE Silt scalar *Visual NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar	Phosphorus	ppm	ASTM D5185m	920	855		
CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >75 ▲ 540 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 22 VISUAL method limit/base current history1 history1 White Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE Poebris scalar *Visual NONE Debris scalar *Visual NONE Sand/Dirt scalar *Visual NORE Appearance scalar *Visual NORML NORML Emulsified Water scala	Zinc	ppm	ASTM D5185m	104	59		
Solition ppm ASTM D5185m >75 ▲ 540 Solition ppm ASTM D5185m 3	Sulfur	ppm	ASTM D5185m	20179	44561		
Sodium	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 22 VISUAL method limit/base current history1 history White Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Silicon	ppm	ASTM D5185m	>75	4 540		
Potassium ppm ASTM D5185m >20 22 VISUAL method limit/base current history1 history1 White Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Sodium	ppm	ASTM D5185m		3		
White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Potassium	ppm	ASTM D5185m	>20	22		
Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG							
Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Ddor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Yellow Metal	scalar					
Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Ddor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Precipitate	scalar	*Visual	NONE			
Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Silt	scalar	*Visual	NONE	NONE		
Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Debris	scalar	*Visual	NONE	NONE		
Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Water scalar *Visual >0.2 NEG	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
Free Water scalar *Visual NFG	Emulsified Water	scalar	*Visual				
TOO TTALOI SOCIALI VISUALI INCO	Free Water	scalar	*Visual		NEG		



OIL ANALYSIS REPORT







Certificate 12367

Laboratory

Sample No. : ML0001135 **Lab Number** : 06150768 Unique Number : 10980846 Test Package : CONST

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 16 Apr 2024 **Tested**

: 17 Apr 2024 Diagnosed : 18 Apr 2024 - Don Baldridge

8450 QUARRY ROAD MANASSAS, VA US 20110

MCCLUNG-LOGAN EQUIPMENT CO - MANASSAS

Contact: DARRELL ANDES dandes@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. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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