

Ascendum Machinery/500 Hour CSA

VOLVO EC220E 310445

Left Travel

{not provided} (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. 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. Please note that the oil was too thick to perform some of the normal laboratory tests.

WEAR

Gear wear is indicated.

CONTAMINATION

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

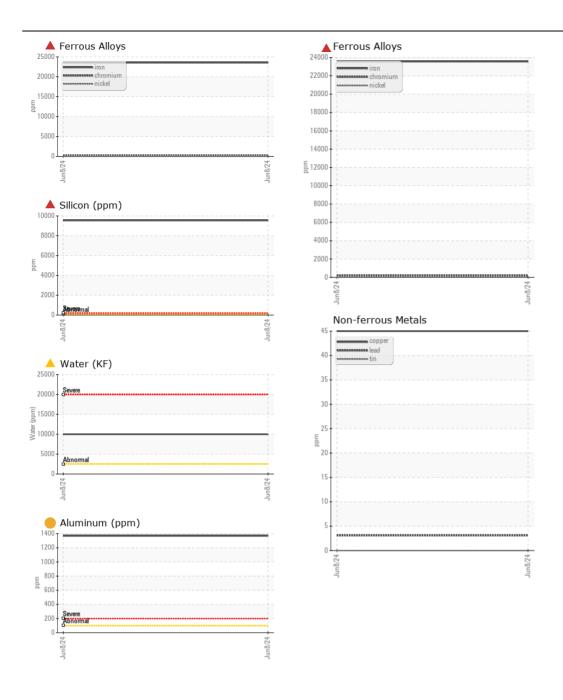
FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0009536		
Sample Date		Client Info		08 Jun 2024		
Machine Age	days	Client Info		5552		
Oil Age	days	Client Info		5552		
Filter Age	days	Client Info		0		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		None		
Sample Status				SEVERE		
			1000	• • • • • • • • • • • • • • • • • • • •		
Iron	ppm	ASTM D5185m	>1200	▲ 23568		
Chromium	ppm	ASTM D5185m	>20	▲ 226		
Nickel	ppm	ASTM D5185m	>5	▲ 26		
Titanium	ppm	ASTM D5185m		125		
Silver	ppm	ASTM D5185m	100	0		
Aluminum	ppm	ASTM D5185m	>100	1369		
Lead	ppm	ASTM D5185m	>50	3		
Copper	ppm	ASTM D5185m	>50	45		
Tin	ppm	ASTM D5185m	>5	0		
Vanadium	ppm	ASTM D5185m	NONE	4		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal						
	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>100	NONE		
Silicon	ppm	ASTM D5185m	>100	4 9550		
Silicon Potassium	ppm ppm	ASTM D5185m ASTM D5185m	>100 >20	▲ 9550 313		
Silicon Potassium Water	ppm ppm %	ASTM D5185m ASTM D5185m ASTM D6304	>100 >20 >0.25	 ▲ 9550 313 ▲ 1.00 		
Silicon Potassium Water ppm Water	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>100 >20 >0.25 >2500	 9550 313 1.00 10000 		
Silicon Potassium Water ppm Water Silt	ppm ppm % ppm scalar	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual	>100 >20 >0.25 >2500 NONE	 9550 313 1.00 10000 NONE 	 	
Silicon Potassium Water ppm Water Silt Debris	ppm ppm % ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual	>100 >20 >0.25 >2500 NONE NONE	 9550 313 1.00 10000 NONE NONE 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt	ppm ppm % ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual	>100 >20 >0.25 >2500 NONE NONE NONE	 9550 313 1.00 10000 NONE NONE NONE 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance	ppm ppm % ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NONE NORML 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm % ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NONE NORE NORML 0.2% 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm % ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NONE NORML NORML 0.2% 139 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm % ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NONE NORML 0.2% 139 27 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NONE NORML 0.2% 139 27 3 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm 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 ASTM D5185m	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NONE NORML 0.2% 139 27 3 27 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NONE NORML 0.2% 139 27 3 27 155 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm 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 ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NONE NORML 0.2% 139 27 3 27 155 85 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm % ppm scalar scalar scalar scalar scalar scalar 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	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NONE NORML 0.2% 139 27 3 27 155 85 222 		
Silicon 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 scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NORE NORML 0.2% 139 27 3 27 3 27 3 27 3 27 3 27 455 85 222 445 		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm % ppm scalar scalar scalar scalar scalar scalar 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	>100 >20 >0.25 >2500 NONE NONE NONE NORML	 9550 313 1.00 10000 NONE NONE NORML 0.2% 139 27 3 27 155 85 222 		

Submitted By: KARRINGTON RENDLEMAN

WEAR SEVERE CONTAMINATION SEVERE FLUID CONDITION NORMAL





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