WEAR CONTAMINATION FLUID CONDITION

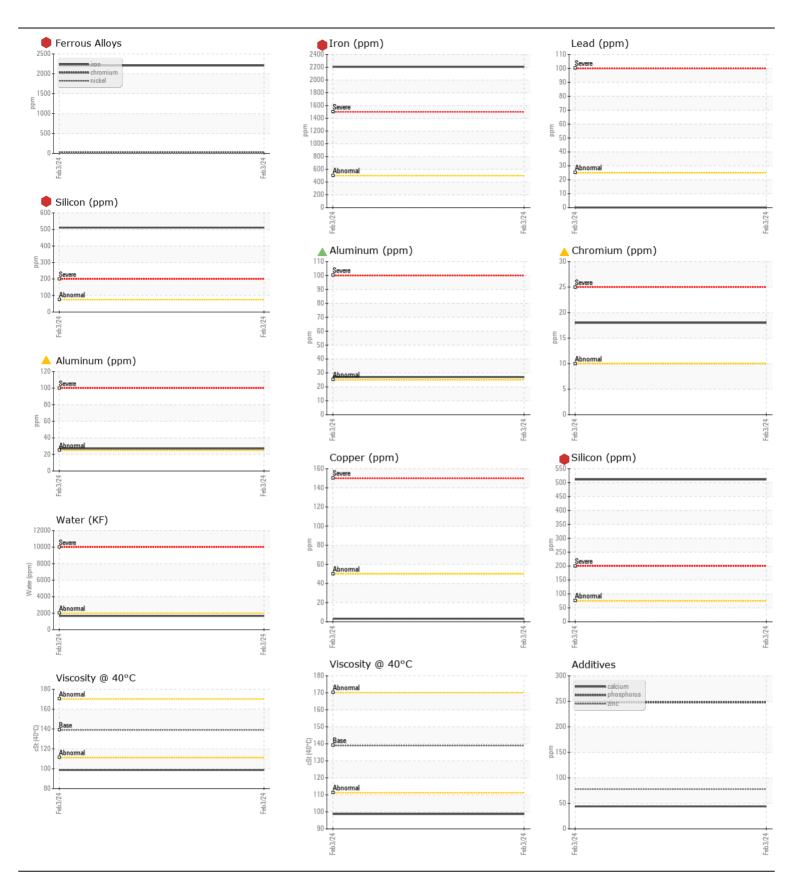
SEVERE SEVERE NORMAL



[SPM660661-10] **VOLVO EC200 314412**

Component Rear Right Final Drive

VOLVO PREMIUM GEAR OIL 80	JW-90 GL-5	(G	AL)				
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.	Sample Number		Client Info		VCP431845		
	Sample Date		Client Info		03 Feb 2024		
	Machine Age	hrs	Client Info		2089		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				SEVERE		
WEAR	Iron	ppm	ASTM D5185m	>500	2206		
Gear wear is indicated.	Chromium	ppm	ASTM D5185m	>10	<u> 1</u> 8		
	Nickel	ppm	ASTM D5185m	>10	6		
	Titanium	ppm	ASTM D5185m		4		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m	>25	27		
	Lead	ppm	ASTM D5185m	>25	0		
	Copper	ppm	ASTM D5185m	>50	3		
	Tin	ppm	ASTM D5185m	>10	<1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION Flemental levels of silicon (Si) and aluminum (Al) indicate alumina-	Silicon	ppm	ASTM D5185m	>75	5 11		
	Datasaliina						
Flamental levels of silicon (Si) and aluminum (Al) indicate alumina-	Potassium	ppm	ASTM D5185m	>20	8		
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina- silicate (coarse dirt) ingress.	Water	ppm %	ASTM D5185m ASTM D6304	>20 >0.2	8 0.166		
` ,							
` ,	Water	%	ASTM D6304	>0.2	0.166		
` ,	Water ppm Water	% ppm	ASTM D6304 ASTM D6304	>0.2 >2000	0.166 1660		
` ,	Water ppm Water Silt	% ppm scalar	ASTM D6304 ASTM D6304 *Visual	>0.2 >2000 NONE	0.166 1660 NONE	 	
` ,	Water ppm Water Silt Debris	% ppm scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual	>0.2 >2000 NONE NONE NONE NORML	0.166 1660 NONE NONE		
` ,	Water ppm Water Silt Debris Sand/Dirt	% ppm scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual	>0.2 >2000 NONE NONE NONE NORML	0.166 1660 NONE NONE NONE	 	
` ,	Water ppm Water Silt Debris Sand/Dirt Appearance	% ppm scalar scalar scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual	>0.2 >2000 NONE NONE NONE NORML	0.166 1660 NONE NONE NONE	 	
` ,	Water ppm Water Silt Debris Sand/Dirt Appearance Odor	% ppm scalar scalar scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual	>0.2 >2000 NONE NONE NONE NORML	0.166 1660 NONE NONE NONE NORML	 	
FLUID CONDITION	Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	% ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>0.2 >2000 NONE NONE NONE NORML NORML >0.2	0.166 1660 NONE NONE NONE NORML NORML	 	
silicate (coarse dirt) ingress.	Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	% ppm scalar scalar scalar scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *ASTM D5185m	>0.2 >2000 NONE NONE NONE NORML NORML >0.2	0.166 1660 NONE NONE NONE NORML NORML 0.2%	 	
silicate (coarse dirt) ingress.	Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	% ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NORML NORML >0.2	0.166 1660 NONE NONE NORML NORML 0.2%	 	
FLUID CONDITION	Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	% ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NORML NORML >0.2 379 0.0	0.166 1660 NONE NONE NORML NORML 0.2%	 	
silicate (coarse dirt) ingress.	Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	% ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Tisual *Visual *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NORML NORML >0.2 379 0.0 0.8 0.0 31	0.166 1660 NONE NONE NORML NORML 0.2% 2 <1 0		
silicate (coarse dirt) ingress.	Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	% ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NONE NORML NORML >0.2 379 0.0 0.8 0.0 31 38	0.166 1660 NONE NONE NORML NORML 0.2% 2 <1 0 2 18 3 44		
FLUID CONDITION	Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	% ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm pp	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual *ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NONE NORML NORML >0.2 379 0.0 0.8 0.0 31 38 1077	0.166 1660 NONE NONE NORML NORML 0.2% 2 <1 0 2 18 3 44 248		
FLUID CONDITION	Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	% ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm pp	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual *D5185m ASTM D5185m	>0.2 >2000 NONE NONE NONE NORML NORML >0.2 379 0.0 0.8 0.0 31 38 1077 46	0.166 1660 NONE NONE NORML NORML 0.2% 2 <1 0 2 18 3 44 248 78		
FLUID CONDITION	Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	% ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm pp	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual *D5185m ASTM D5185m	>0.2 >2000 NONE NONE NONE NORML NORML >0.2 379 0.0 0.8 0.0 31 38 1077 46 23526	0.166 1660 NONE NONE NORML NORML 0.2% 2 <1 0 2 18 3 44 248		





Unique Number : 10875820

Laboratory Sample No. Lab Number : 06088375

: VCP431845

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 13 Feb 2024

Tested : 15 Feb 2024 : 15 Feb 2024 - Sean Felton Diagnosed

8418 PALM RIVER ROAD TAMPA, FL US 33619

ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC

Contact: KENNY HANEY khaney@flaglerce.com

Test Package : MOBCE (Additional Tests: KF) 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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