WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL



[9477 EARTHMOVERS] **VOLVO EC300 311663**

Component Diesel Engine

Sample Number Client Info 16 Jan 2024	DIESEL ENGINE OIL SAE 15W40 (GAL)								
Sample Date Client Info 15 Jan 2024	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2	
Machine Age hrs Client Info 0 2482	Resample at the next service interval to monitor.	Sample Number		Client Info		VCP439248			
Oil Age		Sample Date		Client Info		16 Jan 2024			
Filter Age Dick Transport Chent Info Changed C		Machine Age	hrs	Client Info		2452			
Oil Changed Citent Info Changed Change		Oil Age	hrs	Client Info		0			
Filter Changed Sample Status		Filter Age	hrs	Client Info		0			
NEAR		Oil Changed		Client Info		Changed			
Iron		Filter Changed		Client Info		Changed			
Chromium ppm ASTM D5165m 10 0						_			
Chromium ppm ASTM D5165m 10 0	WEAR	Iron	nnm	ΔSTM D5185m	>100	6			
Nickel ppm ASTM 05185m >10 0	WLAN		• •						
Titanium ppm ASTM D5185m 2	All component wear rates are normal.								
Silver ppm ASTM D5185m >20 0			• •		>10				
Aluminum ppm ASTM D5185m >10 6					0				
Lead ppm ASTM DS185m >20 0			• • • • • • • • • • • • • • • • • • • •						
Copper									
Tin									
Vanadium ppm ASTM D5185m Vanadium NONE NONE NONE Vallow Metal scalar Visual NONE NO									
White Metal Yellow Metal Scalar *Visual NONE					>10				
Yellow Metal Scalar Visual NONE NO									
Silicon ppm ASTM D5185m >20 6			scalar			_			
Potassium ppm ASTM D5185m >20 7		Yellow Metal	scalar	*Visual	NONE	NONE			
Potassium ppm ASTM D5185m >20 7	CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	6			
Water	There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	7			
Glycol		Fuel		WC Method	>6.0	<1.0			
Glycol		Water		WC Method	>0.1	NEG			
Soot %		Glycol				NEG			
Nitration			%	*ASTM D7844	>3	0.1			
Sulfation Abst.tmm *ASTM D7415 >30 19.5									
Silt scalar *Visual NONE NONE NONE									
Debris Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NORML									
Sand/Dirt Scalar *Visual NONE NORML Appearance Scalar *Visual NORML									
Appearance scalar *Visual NORML NORM									
Color									
Emulsified Water scalar *Visual >0.1 NEG		• • • • • • • • • • • • • • • • • • • •							
Boron ppm ASTM D5185m 250 36 Molybdenum ppm ASTM D5185m 10 <1 Magnesium ppm ASTM D5185m 100 52 Magnesium ppm ASTM D5185m 100 52 Magnesium ppm ASTM D5185m 450 781 Calcium ppm ASTM D5185m 3000 1389 Phosphorus ppm ASTM D5185m 1150 1063 Zinc ppm ASTM D5185m 1350 1236 Sulfur ppm ASTM D5185m 4250 3174 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 10.3						-			
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The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Barium ppm ASTM D5185m 10 52 Molybdenum ppm ASTM D5185m 100 52 Manganese ppm ASTM D5185m 450 781 Calcium ppm ASTM D5185m 3000 1389 Phosphorus ppm ASTM D5185m 1150 1063 Zinc ppm ASTM D5185m 1350 1236 Sulfur ppm ASTM D5185m 4250 3174 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 10.3	FLUID CONDITION								
Molybdenum ppm ASTM D5185m 100 52 Manganese ppm ASTM D5185m 450 781 Calcium ppm ASTM D5185m 3000 1389 Phosphorus ppm ASTM D5185m 1150 1063 Sulfur ppm ASTM D5185m 1350 1236 Sulfur ppm ASTM D5185m 4250 3174 Sulfur ppm ASTM D5185m 4250 3174 Base Number (BN) mg KOH/g ASTM D2896 8.5 10.3	The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.								
Manganese ppm ASTM D5185m <1									
Magnesium ppm ASTM D5185m 450 781 Calcium ppm ASTM D5185m 3000 1389 Phosphorus ppm ASTM D5185m 1150 1063 Zinc ppm ASTM D5185m 1350 1236 Sulfur ppm ASTM D5185m 4250 3174 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 10.3					100				
Calcium ppm ASTM D5185m 3000 1389 Phosphorus ppm ASTM D5185m 1150 1063 Zinc ppm ASTM D5185m 1350 1236 Sulfur ppm ASTM D5185m 4250 3174 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 10.3		_			150				
Phosphorus ppm ASTM D5185m 1150 1063 Zinc ppm ASTM D5185m 1350 1236 Sulfur ppm ASTM D5185m 4250 3174 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 10.3		-							
Zinc ppm ASTM D5185m 1350 1236 Sulfur ppm ASTM D5185m 4250 3174 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 10.3			• • • • • • • • • • • • • • • • • • • •						
Sulfur ppm ASTM D5185m 4250 3174 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 10.3		·							
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Base Number (BN) mg KOH/g ASTM D2896 8.5 10.3									
VISC @ 100°C CS[ASIM D445 14.4 12.8]									
		visc @ 100°C	160	ASTIVI D445	14.4	12.8			





Certificate L2367

Laboratory Sample No. Lab Number

Unique Number

: VCP439248 : 06065275 : 10836657

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 19 Jan 2024 Diagnosed : 20 Jan 2024 Diagnostician : Wes Davis

Test Package : MOB 1 (Additional Tests: TBN)

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. ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC 8418 PALM RIVER ROAD

TAMPA, FL US 33619

Contact: KENNY HANEY khaney@flaglerce.com T: (813)630-0077

F: (813)630-2233

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)