

# **CONSTRUCTION EQUIPMENT**

SW-24085-2 GRANT MAC VOLVO EC480E 310924 - DIESEL ENGI



Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

**Job No:** SW-24085-2 GRANT MAC

SAMPLE II	NFORMATION				
Sample Number		VCP432506	VCP404709	VCP354266	
Sample Date		14 Sep 2023	25 May 2023	26 May 2022	
Machine Hours		7932	7304	5705	
Oil Hours		600	500	500	
Oil Changed		Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	
OIL CONDI	TION				
Visc @ 100°C	cSt	<b>12.3</b>	□ 12.5	<b>12.7</b>	
Base Number (BN)	mg KOH/g	<b>7.4</b>	<b>6.0</b>	■7.4	
Oxidation (PA)	%	59	60	55	
CONTAMI	NATION				
Soot %	%	■ 0.1	□ 0.2	■ 0.1	
Nitration (PA)	%	68	78	63	

CONTAMINATION						
Soot %	%	■ 0.1	□ 0.2	□ 0.1		
Nitration (PA)	%	68	78	63		
Sulfation (PA)	%	52	56	51		
Glycol	%	NEG	NEG	NEG		
Fuel	%	<1.0	< 1.0	< 1.0		
Silicon	ppm	<b>■</b> 7	<b>6</b>	<b>□</b> 5		
Sodium	ppm	<b>4</b>	<b>2</b>	□ 0		
Potassium	ppm	<b>1</b>	2	<b>2</b>		

WEAR METALS					
Iron	ppm	<b>7</b>	<b>9</b>	<b>9</b>	
Copper	ppm	<b>2</b>	<b>2</b>	<b>1</b> 3	
Lead	ppm	<b>1</b>	<b>0</b>	<b>-</b> < 1	
Tin	ppm	<b>■</b> <1	<b>-</b> <1	<b>-</b> <1	
Aluminum	ppm	<b>■&lt;1</b>	■3	<b>2</b>	
Chromium	ppm	<b>■&lt;1</b>	<b>-</b> <1	<b>-</b> <1	
Molybdenum	ppm	<b>65</b>	<b>7</b> 8	<b>5</b> 2	
Nickel	ppm	■0	<b>0</b>	□ 0	
Titanium	ppm	0	0	1	
Silver	ppm	<b>■</b> 0	0	0	
Manganese	ppm	<b>■&lt;1</b>	<b>-</b> <1	<b>-</b> <1	
Vanadium	ppm	0	0	0	

ADDITIVES					
Calcium	ppm	■1308	■1855	<b>1231</b>	
Magnesium	ppm	954	<b>157</b>	727	
Zinc	ppm	<b>1298</b>	<b>969</b>	<b>1144</b>	
Phosphorus	ppm	<b>1021</b>	■817	■964	
Barium	ppm	<b>0</b>	<b>6</b>	<b>0</b>	
Boron	ppm	<b>■</b> 3	■58	<b>2</b> 7	



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### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

 Depot:
 VOLVO8770

 Unique No:
 10658575

 Signed:
 Wes Davis

 Report Date:
 22 Sep 2023



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