

**Sample No:** VCP423656 **Oil Type:** SHELL 15W40

**Job No:** 12683 CHESTERFIELD

Sample Number	-	VCP423656	VCP400979	VCP389082	VCP378095
Sample Date		02 Jun 2023	27 Jan 2023	28 Oct 2022	08 Jul 2022
Machine Hours		6175	5556	5113	4567
Oil Hours		600	500	500	590
Oil Changed		Changed	Changed	Changed	Changed
Sample Status		ABNORMAL	ABNORMAL	NORMAL	NORMAL
OIL CONDI	TION				
Visc @ 100°C	cSt	<b>14.9</b>	■ 14.8	■ 14.6	□13.4
Base Number (BN)	mg KOH/g	<b>6.6</b>	■6.4	□ 7.5	□9.2
Oxidation (PA)	%	71	49	57	75

CONTAMINATION						
Soot %	%	■1.2	■ 0.9	■1.3	1	
Nitration (PA)	%	90	72	83	90	
Sulfation (PA)	%	65	55	63	63	
Glycol	%	NEG	NEG	NEG	NEG	
Fuel	%	<1.0	<1.0	<1.0	< 1.0	
Silicon	ppm	<b>■7</b>	<b>5</b>	<b>5</b>	□5	
Sodium	ppm	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	
Potassium	ppm	<b>■&lt;1</b>	<b>2</b>	<b>1</b>	<b>2</b>	

WEAR	METALS					
Iron	ppm	<b>24</b>	□18	<b>1</b> 9	□15	
Copper	ppm	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	
Lead	ppm	<b>0</b>	■ 0	< 1	< 1	
Tin	ppm	■0	<b></b> <1	<1	< 1	
Aluminum	ppm	<u> </u>	<b>△</b> 23	□15	<b>1</b> 4	
Chromium	ppm	<b>2</b>	<b>1</b>	<b>1</b>	< 1	
Molybdenum	ppm	<b>65</b>	<b>7</b>	■26	<b>■</b> 68	
Nickel	ppm	<b>■</b> <1	<b>0</b>	<1	□0	
Titanium	ppm	0	0	0	0	
Silver	ppm	<b>■</b> 0	0	0	0	
Manganese	ppm	<b></b>	< 1	< 1	<1	
Vanadium	ppm	0	0	0	0	

ADDITIVES					
ppm	<b>2299</b>	■2263	<b>2160</b>	■1402	
ppm	<b>150</b>	■83	□158	□581	
ppm	<b>1453</b>	<b>1042</b>	<b>1079</b>	■967	
ppm	<b>1120</b>	■866	■837	792	
ppm	■0	□ 0	■0	■0	
ppm	<b>22</b>	_2	■9	■36	
	ppm ppm ppm ppm ppm	ppm	ppm	ppm     2299     2263     2160       ppm     150     83     158       ppm     1453     1042     1079       ppm     1120     866     837       ppm     0     0     0	



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## Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other 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 acceptable for the time in service.

Depot:VOLVO8882Unique No:10499976Signed:Sean FeltonReport Date:07 Jun 2023



## **CONSTRUCTION EQUIPMENT**





