



# CONSTRUCTION EQUIPMENT

## 25416 VOLVO ECR88D 217512 - DIESEL ENGINE



**Sample No:** VCP455217  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 25416



### SAMPLE INFORMATION

Sample Number	<b>VCP455217</b>	VCP424635	VCP371895	VCP377823
Sample Date	<b>18 Apr 2024</b>	15 Sep 2023	27 Dec 2022	11 Oct 2022
Machine Hours	<b>1979</b>	1460	902	620
Oil Hours	<b>500</b>	500	1000	250
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	ABNORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.6</b>	14.1	13.7	14.1
Base Number (BN)	mg KOH/g	<b>8.6</b>	8.3	9.9	8.3
Oxidation (PA)	%	<b>82</b>	83	86	70

### 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.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.4</b>	0.4	0.2	0.4
Nitration (PA)	%	<b>77</b>	78	68	78
Sulfation (PA)	%	<b>60</b>	60	63	66
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>7</b>	6	5	9
Sodium	ppm	<b>3</b>	3	3	4
Potassium	ppm	<b>0</b>	2	0	3



### WEAR METALS

Iron	ppm	<b>12</b>	17	11	31
Copper	ppm	<b>0</b>	4	10	▲ 102
Lead	ppm	<b>0</b>	0	<1	<1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>4</b>	4	3	5
Chromium	ppm	<b>&lt;1</b>	<1	<1	2
Molybdenum	ppm	<b>50</b>	53	44	44
Nickel	ppm	<b>0</b>	<1	<1	<1
Titanium	ppm	<b>0</b>	<1	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	3
Vanadium	ppm	<b>0</b>	0	0	<1



### ADDITIVES

Calcium	ppm	<b>1739</b>	1918	1921	2189
Magnesium	ppm	<b>518</b>	502	516	227
Zinc	ppm	<b>1179</b>	1297	1119	1252
Phosphorus	ppm	<b>981</b>	1082	978	1006
Barium	ppm	<b>0</b>	0	0	1
Boron	ppm	<b>23</b>	15	41	34

**Depot:** OLTNOR  
**Unique No:** 10992770  
**Signed:** Wes Davis  
**Report Date:** 24 Apr 2024



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## GRAPHS

