



# CONSTRUCTION EQUIPMENT

## A10608 VOLVO ECR235D 210265 - DIESEL ENGINE



**Sample No:** VCP408932  
**Oil Type:** MOBIL 15W40  
**Job No:** A10608



### SAMPLE INFORMATION

Sample Number	<b>VCP408932</b>	VCP341004	VCBM001650	VCP296112
Sample Date	<b>27 Jun 2023</b>	08 Nov 2021	01 Apr 2021	01 Mar 2021
Machine Hours	<b>7470</b>	6940	6720	6667
Oil Hours	<b>250</b>	250	50	250
Oil Changed	<b>Changed</b>	Changed	Not Changd	Changed
Sample Status	<b>ABNORMAL</b>	ATTENTION	ABNORMAL	ABNORMAL

**DYER QUARRY**  
P.O. BOX 188, 1275 ROCK HOLLOW ROAD  
BIRDSBORO, PA  
US 19508  
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### OIL CONDITION

Visc @ 100°C	cSt	█ <b>12.8</b>	▲ 12.35	▲ 12.0	█ 13.0
Base Number (BN)	mg KOH/g	█ <b>11.2</b>	---	---	---
Oxidation (PA)	%	<b>81</b>	76	71	78

### CONTAMINATION

Soot %	%	█ <b>0.2</b>	█ 0.2	█ 0.1	█ 0.2
Nitration (PA)	%	<b>63</b>	55	43	58
Sulfation (PA)	%	<b>61</b>	60	61	61
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	█ 0.4	<1.0
Silicon	ppm	█ <b>12</b>	█ 10	█ 8	█ 13
Sodium	ppm	█ <b>4</b>	█ 4	█ 2	█ 4
Potassium	ppm	█ <b>0</b>	█ 1	█ <1	█ <1

### WEAR METALS

Iron	ppm	▲ <b>137</b>	█ 49	█ 23	▲ 115
Copper	ppm	█ <b>2</b>	█ 1	█ <1	█ 2
Lead	ppm	█ <b>0</b>	█ <1	█ <1	█ 0
Tin	ppm	█ <b>1</b>	█ <1	█ <1	█ <1
Aluminum	ppm	█ <b>7</b>	█ 6	█ 2	█ 8
Chromium	ppm	█ <b>2</b>	█ 1	█ <1	█ 2
Molybdenum	ppm	█ <b>41</b>	█ 49	█ 51	█ 47
Nickel	ppm	█ <b>&lt;1</b>	█ <1	█ <1	█ <1
Titanium	ppm	<b>4</b>	<1	<1	<1
Silver	ppm	█ <b>0</b>	0	<1	0
Manganese	ppm	█ <b>&lt;1</b>	█ <1	█ <1	█ <1
Vanadium	ppm	<b>0</b>	0	0	<1

### ADDITIVES

Calcium	ppm	█ <b>1775</b>	█ 1712	█ 1651	█ 1705
Magnesium	ppm	█ <b>537</b>	█ 520	█ 409	█ 520
Zinc	ppm	█ <b>1124</b>	█ 1025	█ 1044	█ 965
Phosphorus	ppm	█ <b>943</b>	█ 943	█ 857	█ 907
Barium	ppm	█ <b>0</b>	█ 0	█ 0	█ 0
Boron	ppm	█ <b>53</b>	█ 52	█ 72	█ 53

### Diagnosis

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Cylinder, crank, or cam shaft wear is indicated. 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:** DYEBIR  
**Unique No:** 10547696  
**Signed:** Doug Bogart  
**Report Date:** 09 Jul 2023

**VOLVO** **GRAPHS**

