



CONSTRUCTION EQUIPMENT

SPM688848 VOLVO EC480EL 315144 - DIESEL ENGINE



Sample No: VCP427259
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SPM688848



SAMPLE INFORMATION

Sample Number	VCP427259	VCP420667	---	---
Sample Date	02 Apr 2024	18 Jul 2023	---	---
Machine Hours	1019	436	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

SIMS METAL MANAGEMENT

2500 S. PAULINA
 CHICAGO, IL
 US 60608
 Contact: RYAN WISE
 ryan.wise@simsmm.com
 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	● 12.3	● 10.9	---	---
Base Number (BN)	mg KOH/g	■ 5.6	■ 5.0	---	---
Oxidation (PA)	%	74	69	---	---

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 copper level has decreased, but is still abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.2	■ 0.1	---	---
Nitration (PA)	%	91	88	---	---
Sulfation (PA)	%	62	59	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	■ 0.7	---	---
Silicon	ppm	■ 10	■ 22	---	---
Sodium	ppm	■ 2	■ 0	---	---
Potassium	ppm	■ 0	■ 4	---	---



WEAR METALS

Iron	ppm	■ 12	■ 14	---	---
Copper	ppm	▲ 43	▲ 232	---	---
Lead	ppm	■ <1	■ <1	---	---
Tin	ppm	■ 1	■ 2	---	---
Aluminum	ppm	■ <1	■ 2	---	---
Chromium	ppm	■ <1	■ 0	---	---
Molybdenum	ppm	■ 56	■ 85	---	---
Nickel	ppm	■ 0	■ <1	---	---
Titanium	ppm	■ 2	■ 0	---	---
Silver	ppm	■ 0	■ <1	---	---
Manganese	ppm	■ <1	■ 2	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	■ 1231	■ 2174	---	---
Magnesium	ppm	■ 860	■ 128	---	---
Zinc	ppm	■ 1097	■ 1183	---	---
Phosphorus	ppm	■ 829	■ 977	---	---
Barium	ppm	■ 0	■ 2	---	---
Boron	ppm	■ <1	■ 24	---	---

Depot: SIMCHIL
Unique No: 10989302
Signed: Sean Felton
Report Date: 23 Apr 2024



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GRAPHS

