



CONSTRUCTION EQUIPMENT

13298 GEORGE NRCQ VOLVO EC480E 315171 - DIESEL ENGINE



Sample No: VCP414598
Oil Type: SHELL 15W40
Job No: 13298 GEORGE NRCQ



McClung-Logan Virginia LLC- RICHMOND
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SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-----|-----|-----|
| Sample Number | VCP414598 | --- | --- | --- |
| Sample Date | 21 Aug 2023 | --- | --- | --- |
| Machine Hours | 500 | --- | --- | --- |
| Oil Hours | 500 | --- | --- | --- |
| Oil Changed | Changed | --- | --- | --- |
| Sample Status | ABNORMAL | --- | --- | --- |

OIL CONDITION

| | | | | | |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C | cSt | ▲ 11.9 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | ■ 5.2 | --- | --- | --- |
| Oxidation (PA) | % | 48 | --- | --- | --- |

CONTAMINATION

| | | | | | |
|----------------|-----|-------|-----|-----|-----|
| Soot % | % | ■ 0.1 | --- | --- | --- |
| Nitration (PA) | % | 59 | --- | --- | --- |
| Sulfation (PA) | % | 52 | --- | --- | --- |
| Glycol | % | ■ 0.0 | --- | --- | --- |
| Fuel | % | ■ 0.9 | --- | --- | --- |
| Silicon | ppm | ■ 24 | --- | --- | --- |
| Sodium | ppm | ■ 0 | --- | --- | --- |
| Potassium | ppm | ■ 4 | --- | --- | --- |

WEAR METALS

| | | | | | |
|------------|-----|-------|-----|-----|-----|
| Iron | ppm | ■ 15 | --- | --- | --- |
| Copper | ppm | ▲ 283 | --- | --- | --- |
| Lead | ppm | ■ <1 | --- | --- | --- |
| Tin | ppm | ■ 2 | --- | --- | --- |
| Aluminum | ppm | ■ 0 | --- | --- | --- |
| Chromium | ppm | ■ 0 | --- | --- | --- |
| Molybdenum | ppm | ■ 23 | --- | --- | --- |
| Nickel | ppm | ■ 0 | --- | --- | --- |
| Titanium | ppm | 0 | --- | --- | --- |
| Silver | ppm | ■ 0 | --- | --- | --- |
| Manganese | ppm | ■ 2 | --- | --- | --- |
| Vanadium | ppm | 0 | --- | --- | --- |

ADDITIVES

| | | | | | |
|------------|-----|--------|-----|-----|-----|
| Calcium | ppm | ■ 2252 | --- | --- | --- |
| Magnesium | ppm | ■ 73 | --- | --- | --- |
| Zinc | ppm | ■ 1098 | --- | --- | --- |
| Phosphorus | ppm | ■ 925 | --- | --- | --- |
| Barium | ppm | ■ 2 | --- | --- | --- |
| Boron | ppm | ■ 7 | --- | --- | --- |

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 is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in. Fuel content negligible. No other contaminants were detected 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.

Depot: VOLVO8882
Unique No: 10617940
Signed: Sean Felton
Report Date: 25 Aug 2023



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GRAPHS

