



CONSTRUCTION EQUIPMENT

SWA448808 THREE LAKE VOLVO EC550 310286 - DIESEL ENGINE



Sample No: VCP438139
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SWA448808 THREE LAKE



SAMPLE INFORMATION

Sample Number	VCP438139	---	---	---
Sample Date	05 Jan 2024	---	---	---
Machine Hours	675	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

ALTA EQUIPMENT COMPANY

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OIL CONDITION

Visc @ 100°C	cSt	▲ 10.7	---	---	---
Base Number (BN)	mg KOH/g	■ 4.9	---	---	---
Oxidation (PA)	%	67	---	---	---

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. 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	---	---	---
Soot %	%	■ 0.2	---	---	---
Nitration (PA)	%	83	---	---	---
Sulfation (PA)	%	60	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 0.4	---	---	---
Silicon	ppm	■ 26	---	---	---
Sodium	ppm	■ 3	---	---	---
Potassium	ppm	■ 3	---	---	---



WEAR METALS

Iron	ppm	■ 12	---	---	---
Copper	ppm	▲ 149	---	---	---
Lead	ppm	■ 2	---	---	---
Tin	ppm	■ 2	---	---	---
Aluminum	ppm	■ <1	---	---	---
Chromium	ppm	■ 0	---	---	---
Molybdenum	ppm	■ 76	---	---	---
Nickel	ppm	■ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 1	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	■ 2050	---	---	---
Magnesium	ppm	78	---	---	---
Zinc	ppm	■ 1200	---	---	---
Phosphorus	ppm	■ 893	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 7	---	---	---

Depot: VOLVO0095
Unique No: 10823698
Signed: Don Baldrige
Report Date: 14 Jan 2024

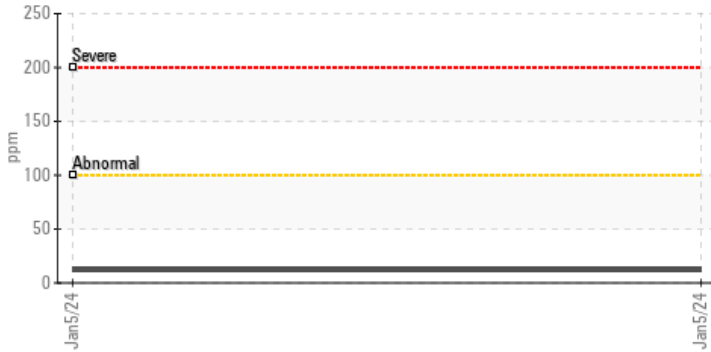


CONSTRUCTION EQUIPMENT



GRAPHS

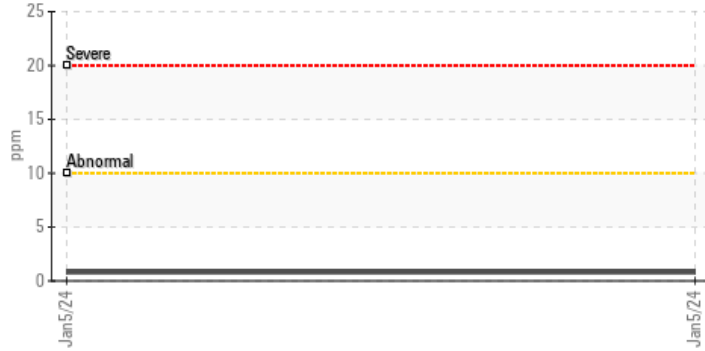
Iron (ppm)



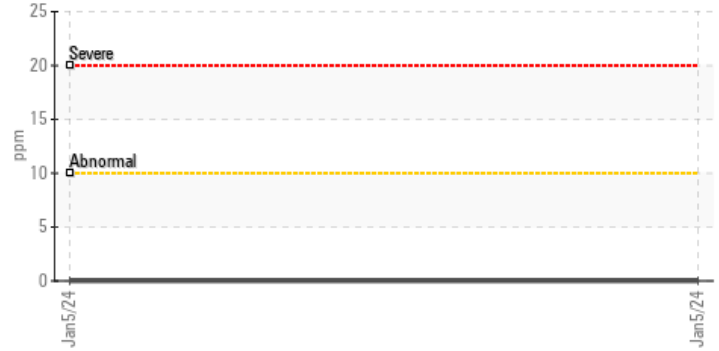
Lead (ppm)



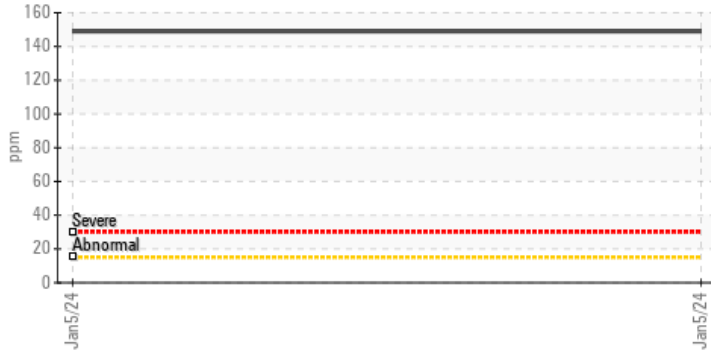
Aluminum (ppm)



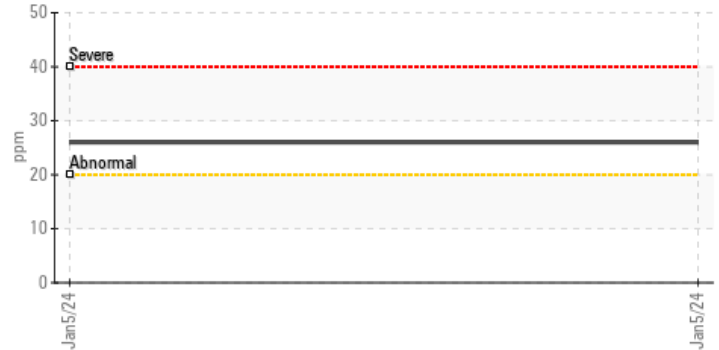
Chromium (ppm)



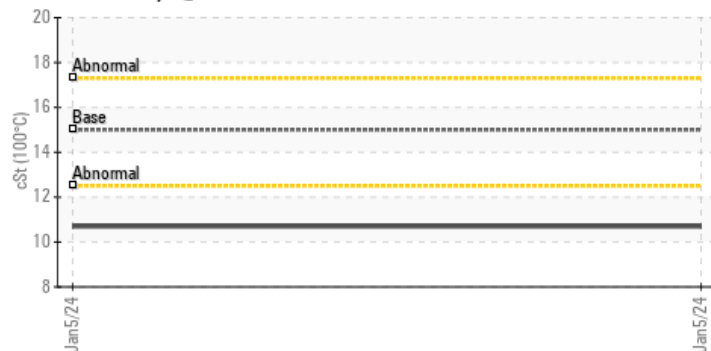
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

