



CONSTRUCTION EQUIPMENT

TORO STX38 411838941 - DIESEL ENGINE



Sample No: VCP402635
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP402635	---	---	---
Sample Date	12 Sep 2023	---	---	---
Machine Hours	108	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

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 5151 DR MARTIN LUTHER KING BLVD
 FORT MYERS, FL
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OIL CONDITION

Visc @ 100°C	cSt	▲ 10.4	---	---	---
Base Number (BN)	mg KOH/g	■ 8.4	---	---	---
Oxidation (PA)	%	57	---	---	---

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

CONTAMINATION

Soot %	%	■ 0.1	---	---	---
Nitration (PA)	%	93	---	---	---
Sulfation (PA)	%	60	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	▲ 3.7	---	---	---
Silicon	ppm	■ 10	---	---	---
Sodium	ppm	■ 14	---	---	---
Potassium	ppm	■ 9	---	---	---

WEAR METALS

Iron	ppm	■ 46	---	---	---
Copper	ppm	■ 21	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ 15	---	---	---
Aluminum	ppm	■ 22	---	---	---
Chromium	ppm	■ 2	---	---	---
Molybdenum	ppm	■ 63	---	---	---
Nickel	ppm	■ <1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 4	---	---	---
Vanadium	ppm	<1	---	---	---

ADDITIVES

Calcium	ppm	■ 1711	---	---	---
Magnesium	ppm	▲ 849	---	---	---
Zinc	ppm	▲ 1537	---	---	---
Phosphorus	ppm	■ 1028	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 19	---	---	---

Depot: VOLVO0090
Unique No: 10649654
Signed: Wes Davis
Report Date: 20 Sep 2023



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GRAPHS

