



CONSTRUCTION EQUIPMENT

4165HO BN EXCAVATING VOLVO EC350EL 310724 - DIESEL ENGINE



Sample No: VCP435012
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 4165HO BN EXCAVATING



SAMPLE INFORMATION

Sample Number	VCP435012	---	---	---
Sample Date	21 Aug 2023	---	---	---
Machine Hours	1544	---	---	---
Oil Hours	500	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

HIGHWAY EQUIPMENT AND SUPPLY CO
 200 BURKHOLDER DR.
 EPHRATA, PA
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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.8	---	---	---
Base Number (BN)	mg KOH/g	■ 8.1	---	---	---
Oxidation (PA)	%	79	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. 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

Soot %	%	■ 0.1	---	---	---
Nitration (PA)	%	69	---	---	---
Sulfation (PA)	%	58	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 2.2	---	---	---
Silicon	ppm	■ 8	---	---	---
Sodium	ppm	■ 3	---	---	---
Potassium	ppm	■ 0	---	---	---



WEAR METALS

Iron	ppm	■ 5	---	---	---
Copper	ppm	■ 21	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ 1	---	---	---
Aluminum	ppm	■ <1	---	---	---
Chromium	ppm	■ 0	---	---	---
Molybdenum	ppm	■ 48	---	---	---
Nickel	ppm	■ 0	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ <1	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

Calcium	ppm	■ 1735	---	---	---
Magnesium	ppm	■ 556	---	---	---
Zinc	ppm	■ 1033	---	---	---
Phosphorus	ppm	■ 872	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 41	---	---	---

Depot: INSEPH
Unique No: 10621100
Signed: Don Baldrige
Report Date: 30 Aug 2023



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GRAPHS

