



CONSTRUCTION EQUIPMENT

11052 VOLVO EC380E 310536 - DIESEL ENGINE



Sample No: VCP440578
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 11052



HOFFMAN EQUIPMENT - LIONVILLE
 120 GORDON DRIVE
 LIONVILLE, PA
 US 19341
 Contact: JIM FEHR
 jim.fehr@hoffmanequip.com
 T: (610)363-9200
 F: (610)594-0829

SAMPLE INFORMATION

Sample Number	VCP440578	VCP353990	---	---
Sample Date	06 Sep 2023	19 Aug 2022	---	---
Machine Hours	3895	3522	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Not Changd	---	---
Sample Status	ABNORMAL	SEVERE	---	---

OIL CONDITION

Visc @ 100°C	cSt	▲ 11.1	■ 12.7	---	---
Base Number (BN)	mg KOH/g	■ 8.1	■ 5.3	---	---
Oxidation (PA)	%	72	63	---	---

CONTAMINATION

Soot %	%	■ 0.1	■ 0.1	---	---
Nitration (PA)	%	58	64	---	---
Sulfation (PA)	%	56	63	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	▲ 4.7	<1.0	---	---
Silicon	ppm	▲ 38	▲ 28	---	---
Sodium	ppm	■ 9	■ 0	---	---
Potassium	ppm	■ 8	■ 0	---	---

WEAR METALS

Iron	ppm	■ 11	■ 90	---	---
Copper	ppm	■ 6	■ 372	---	---
Lead	ppm	■ 2	■ 136	---	---
Tin	ppm	■ 3	■ 31	---	---
Aluminum	ppm	■ 2	■ 36	---	---
Chromium	ppm	■ <1	■ <1	---	---
Molybdenum	ppm	■ 55	■ 9	---	---
Nickel	ppm	■ <1	■ 4	---	---
Titanium	ppm	<1	■ <1	---	---
Silver	ppm	■ 0	■ 1	---	---
Manganese	ppm	■ 2	■ 2	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	■ 1572	■ 2258	---	---
Magnesium	ppm	■ 430	■ 146	---	---
Zinc	ppm	■ 1052	■ 1140	---	---
Phosphorus	ppm	■ 845	■ 867	---	---
Barium	ppm	■ 0	■ 0	---	---
Boron	ppm	■ 46	■ 4	---	---

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. Light fuel dilution occurring. Elemental level of silicon (Si) above normal indicating ingress of seal material. Fuel is present in the oil and is lowering the viscosity.

Depot: VOLVO8879
Unique No: 10657345
Signed: Doug Bogart
Report Date: 21 Sep 2023



CONSTRUCTION EQUIPMENT



GRAPHS

