



CONSTRUCTION EQUIPMENT

VOLVO EW180E K00320339 - DIESEL ENGINE



Sample No: VCP381522
Oil Type: MOBIL 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP381522	VC527562	VC549442	VC524307
Sample Date	08 Feb 2024	10 Feb 2022	21 Jan 2021	22 Jul 2019
Machine Hours	2660	2095	1635	1047
Oil Hours	205	267	203	196
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

DUNN COUNTY HIGHWAY DEPARTMENT
 ROUTE 2 BOX 71A, 3303 US HWY 12 EAST
 MENOMONIE, WI
 US 54751
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OIL CONDITION

Visc @ 100°C	cSt	█ 13.2	█ 13.6	█ 13.3	█ 14.03
Base Number (BN)	mg KOH/g	█ 8.4	█ 9.0	---	---
Oxidation (PA)	%	57	61	71	67

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	█ 0.2	█ 0.2	█ 0.1	█ 0.1
Nitration (PA)	%	56	66	58	60
Sulfation (PA)	%	51	55	58	50
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	█ 6	█ 10	█ 6	█ 9
Sodium	ppm	█ 2	█ 2	█ 0	█ 5
Potassium	ppm	█ 4	█ 7	█ 6	█ 10



WEAR METALS

Iron	ppm	█ 18	█ 14	█ 6	█ 7
Copper	ppm	█ <1	█ 1	█ 2	█ <1
Lead	ppm	█ 0	█ 0	█ 0	█ 0
Tin	ppm	█ 0	█ <1	█ <1	█ 0
Aluminum	ppm	█ 5	█ 10	█ 0	█ 4
Chromium	ppm	█ <1	█ <1	█ <1	█ <1
Molybdenum	ppm	█ 29	█ 20	█ 27	█ 51
Nickel	ppm	█ 0	█ 0	█ 0	█ <1
Titanium	ppm	0	0	<1	<1
Silver	ppm	█ <1	0	0	0
Manganese	ppm	█ <1	█ <1	█ <1	█ <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	█ 1910	█ 1986	█ 1556	█ 1601
Magnesium	ppm	█ 397	█ 263	█ 546	█ 856
Zinc	ppm	█ 1175	█ 995	█ 851	█ 1083
Phosphorus	ppm	█ 945	█ 814	█ 765	█ 980
Barium	ppm	14	█ 0	█ 0	█ 0
Boron	ppm	█ 24	█ 33	█ 65	█ 47

Depot: DUNMEN
Unique No: 10887539
Signed: Wes Davis
Report Date: 21 Feb 2024

VOLVO **GRAPHS**

