



CONSTRUCTION EQUIPMENT

VOLVO G946 42568 - DIESEL ENGINE



Sample No: VCE170163
Oil Type: CENEX SUPER LUBE 15W40 TMZ
Job No:



SAMPLE INFORMATION

Sample Number	VCE170163	VCE180609	VCE170175	VCE137620
Sample Date	19 Oct 2023	24 Jun 2021	27 Jun 2020	05 Jul 2018
Machine Hours	10905	9406	8870	0
Oil Hours	251	303	256	275
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

TOWN OF CASSEL
 3398 EAGLE LN
 MARATHON, WI
 US 54448
 Contact: MARY KAY HAGINBUCHER
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 T:
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OIL CONDITION

Visc @ 100°C	cSt	█ 14.7	█ 15.1	█ 14.8	█ 14.87
Base Number (BN)	mg KOH/g	█ 9.2	---	---	---
Oxidation (PA)	%	█ 55	63	59	█ 40

CONTAMINATION

Soot %	%	█ 0.3	█ 0.3	█ 0.2	█ 0.1
Nitration (PA)	%	█ 51	59	53	█ 42
Sulfation (PA)	%	█ 50	55	53	█ 42
Glycol	%	█ NEG	NEG	NEG	NEG
Fuel	%	█ <1.0	<1.0	<1.0	<1.0
Silicon	ppm	█ 3	█ 3	█ 4	█ 3
Sodium	ppm	█ <1	█ 1	█ 2	█ 2
Potassium	ppm	█ 1	█ <1	█ 2	█ 2

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.

WEAR METALS

Iron	ppm	█ 4	█ 6	█ 4	█ 11
Copper	ppm	█ 0	█ <1	█ <1	█ 2
Lead	ppm	█ <1	█ <1	█ 2	█ 0
Tin	ppm	█ <1	█ <1	█ 7	█ 0
Aluminum	ppm	█ 1	█ 1	█ 1	█ 1
Chromium	ppm	█ <1	█ <1	█ <1	█ <1
Molybdenum	ppm	█ 59	█ 62	█ 60	█ 61
Nickel	ppm	█ <1	█ 0	█ <1	█ 0
Titanium	ppm	█ 0	0	<1	0
Silver	ppm	█ 0	0	0	<1
Manganese	ppm	█ <1	<1	<1	<1
Vanadium	ppm	█ 0	0	0	0

ADDITIVES

Calcium	ppm	█ 1055	█ 1117	█ 1099	█ 1158
Magnesium	ppm	█ 994	█ 977	█ 1041	█ 955
Zinc	ppm	█ 1309	█ 1246	█ 1161	█ 1131
Phosphorus	ppm	█ 1110	█ 1075	█ 1022	█ 944
Barium	ppm	█ 0	█ 0	█ 0	█ 0
Boron	ppm	█ 2	█ 10	█ 2	█ 7

Depot: TOWMARWI
Unique No: 10714610
Signed: Wes Davis
Report Date: 30 Oct 2023



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VOLVO GRAPHS

