

OIL ANALYSIS REPORT



MICHAEL MULHERN 505700 ONAN G16K975028 - GENSET

Sample No: VPA058465
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMATION

Sample Number	VPA058465	VPA044402	VPA029993	VPA032324
Sample Date	19 Mar 2024	02 Mar 2023	10 Jan 2022	10 Mar 2021
Machine Hours	1425	1303	1197	983
Oil Hours	1425	106	214	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.6	13.0	12.8	13.2
Base Number (BN)	mg KOH/g	7.8	10.4	11.0	---
Oxidation (PA)	%	55	57	65	67

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.2	0.1
Nitration (PA)	%	53	46	55	50
Sulfation (PA)	%	50	52	58	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	6	10	9
Sodium	ppm	4	1	2	2
Potassium	ppm	2	1	1	0

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 acceptable for the time in service.

WEAR METALS

Iron	ppm	7	5	10	9
Copper	ppm	<1	<1	2	4
Lead	ppm	0	0	<1	1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	4	1	0	<1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	102	59	56	59
Nickel	ppm	<1	<1	0	0
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	<1	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	2598	1050	1104	1338
Magnesium	ppm	436	907	906	887
Zinc	ppm	1737	1233	1040	1210
Phosphorus	ppm	1442	999	967	1055
Barium	ppm	0	0	0	0
Boron	ppm	150	4	21	22

Depot: VP297371
Unique No: 10940227
Signed: Don Baldrige
Report Date: 25 Mar 2024

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VOLVO PENTA

GRAPHS

