



CONSTRUCTION EQUIPMENT

STAKER VOLVO L220H 2899 - DIESEL ENGINE



Sample No: VCP324491
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: STAKER



SAMPLE INFORMATION

Sample Number	VCP324491	VCP346341	VCP319106	VCP295222
Sample Date	22 Feb 2024	25 May 2022	05 Oct 2021	06 Apr 2021
Machine Hours	11623	10210	0	9024
Oil Hours	0	650	0	248
Oil Changed	Changed	Not Changd	Not Changd	Changed
Sample Status	NORMAL	NORMAL	SEVERE	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	14.4	13.8	13.4	12.7
Base Number (BN)	mg KOH/g	8.2	10.1	---	---
Oxidation (PA)	%	82	71	80	85



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.1	0.3	0.2
Nitration (PA)	%	83	43	62	54
Sulfation (PA)	%	63	58	64	67
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	7	▲ 122	18
Sodium	ppm	1	<1	6	5
Potassium	ppm	1	1	12	2



WEAR METALS

Iron	ppm	4	7	▲ 134	31
Copper	ppm	1	<1	▲ 36	2
Lead	ppm	2	<1	▲ 16	1
Tin	ppm	<1	<1	6	1
Aluminum	ppm	2	2	● 31	3
Chromium	ppm	<1	<1	4	<1
Molybdenum	ppm	62	47	37	39
Nickel	ppm	<1	0	2	<1
Titanium	ppm	0	0	1	<1
Silver	ppm	0	<1	<1	0
Manganese	ppm	<1	<1	2	<1
Vanadium	ppm	<1	0	<1	0



ADDITIVES

Calcium	ppm	1322	1443	1862	1581
Magnesium	ppm	876	610	552	505
Zinc	ppm	1402	1121	1087	1045
Phosphorus	ppm	1141	947	869	911
Barium	ppm	0	0	0	0
Boron	ppm	9	47	34	50

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.

Depot: VOLVO8770
Unique No: 10903175
Signed: Wes Davis
Report Date: 01 Mar 2024



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GRAPHS

