



CONSTRUCTION EQUIPMENT

W-5560-1 TUTMAN VOLVO L90H 624304 - DIESEL ENGINE



Sample No: VCP411779
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: W-5560-1 TUTMAN



SAMPLE INFORMATION

Sample Number	VCP411779	VCP417046	VCP396204	VCP380565
Sample Date	01 Sep 2023	14 Jun 2023	24 Feb 2023	22 Nov 2022
Machine Hours	11056	10636	10091	8587
Oil Hours	0	0	0	0
Oil Changed	N/A	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	15.4	13.5	13.0	13.7
Base Number (BN)	mg KOH/g	7.4	7.7	7.1	8.1
Oxidation (PA)	%	40	57	55	65



CONTAMINATION

Soot %	%	0.2	0.2	0.4	0.4
Nitration (PA)	%	58	66	68	83
Sulfation (PA)	%	47	53	54	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	6	7	6
Sodium	ppm	2	<1	<1	2
Potassium	ppm	1	<1	2	1



WEAR METALS

Iron	ppm	4	6	9	7
Copper	ppm	1	<1	<1	<1
Lead	ppm	0	0	0	<1
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	2	2	5	6
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	8	77	75	76
Nickel	ppm	0	0	<1	<1
Titanium	ppm	0	<1	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	<1	0	<1



ADDITIVES

Calcium	ppm	2282	1929	1576	2038
Magnesium	ppm	58	410	347	167
Zinc	ppm	1085	1249	1065	1241
Phosphorus	ppm	881	1056	920	983
Barium	ppm	0	0	0	0
Boron	ppm	20	241	195	49

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: VOLVO9010
Unique No: 10632452
Signed: Wes Davis
Report Date: 05 Sep 2023



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GRAPHS

