



CONSTRUCTION EQUIPMENT

VOLVO L180H 4177 - DIESEL ENGINE



Sample No: VCP436149
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP436149	VCP312601	VCP307445	---
Sample Date	19 Dec 2023	21 Nov 2021	14 Apr 2021	---
Machine Hours	7030	5527	5057	---
Oil Hours	0	0	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	12.3	12.5	12.9	---
Base Number (BN)	mg KOH/g	8.9	---	---	---
Oxidation (PA)	%	82	73	88	---



CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.2	0.1	0.2	---
Nitration (PA)	%	70	52	62	---
Sulfation (PA)	%	59	60	66	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	5	5	4	---
Sodium	ppm	4	<1	2	---
Potassium	ppm	<1	0	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 suitable for further service.



WEAR METALS

Iron	ppm	3	16	4	---
Copper	ppm	2	1	1	---
Lead	ppm	0	1	<1	---
Tin	ppm	<1	<1	<1	---
Aluminum	ppm	1	6	<1	---
Chromium	ppm	<1	<1	<1	---
Molybdenum	ppm	44	34	40	---
Nickel	ppm	<1	0	<1	---
Titanium	ppm	0	<1	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	1671	1803	1669	---
Magnesium	ppm	555	453	477	---
Zinc	ppm	1140	1016	1132	---
Phosphorus	ppm	1008	956	952	---
Barium	ppm	0	0	0	---
Boron	ppm	27	41	52	---

Depot: VOLVO0090
Unique No: 10804398
Signed: Wes Davis
Report Date: 27 Dec 2023



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GRAPHS

