



CONSTRUCTION EQUIPMENT

580221 VOLVO L110H 631108 - DIESEL ENGINE



Sample No: VCP422685
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 580221



SAMPLE INFORMATION

Sample Number	VCP422685	VCP393992	VCP385320	VCP376716
Sample Date	20 Jul 2023	24 Mar 2023	27 Oct 2022	25 Jul 2022
Machine Hours	12148	11606	11060	10590
Oil Hours	500	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

RIPA AND ASSOCIATES
 10149 FISHER AVENUE
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 US 33619
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 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	12.5	12.9	13.8	13.2
Base Number (BN)	mg KOH/g	9.7	9.9	10.8	11.9
Oxidation (PA)	%	80	83	73	88

CONTAMINATION

Soot %	%	0.3	0.2	0.3	0.2
Nitration (PA)	%	67	69	78	68
Sulfation (PA)	%	58	61	60	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	8	4	4
Sodium	ppm	2	16	<1	1
Potassium	ppm	1	2	0	0

WEAR METALS

Iron	ppm	9	11	11	8
Copper	ppm	<1	8	1	<1
Lead	ppm	<1	0	<1	<1
Tin	ppm	1	<1	<1	<1
Aluminum	ppm	5	4	4	4
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	45	48	51	40
Nickel	ppm	<1	<1	0	0
Titanium	ppm	<1	2	13	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	<1	<1	0

ADDITIVES

Calcium	ppm	1681	1742	1347	1636
Magnesium	ppm	535	631	818	483
Zinc	ppm	1175	1273	1273	1058
Phosphorus	ppm	979	1042	1037	863
Barium	ppm	0	0	0	0
Boron	ppm	28	29	20	30

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: RIPTAM
Unique No: 10601872
Signed: Wes Davis
Report Date: 11 Aug 2023



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GRAPHS

