



CONSTRUCTION EQUIPMENT

566012 VOLVO L110H 632273 - DIESEL ENGINE



Sample No: VCP424509
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 566012



SAMPLE INFORMATION

Sample Number	VCP424509	VCP423512	VCP386644	VCP372205
Sample Date	20 Jun 2023	23 Mar 2023	29 Nov 2022	02 Sep 2022
Machine Hours	2490	1526	1001	532
Oil Hours	500	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

RIPA AND ASSOCIATES
 10149 FISHER AVENUE
 TAMPA, FL
 US 33619
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 T:
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OIL CONDITION

Visc @ 100°C	cSt	█ 13.1	█ 12.2	█ 12.6	█ 12.7
Base Number (BN)	mg KOH/g	█ 10.4	█ 10.0	█ 11.1	█ 11.1
Oxidation (PA)	%	80	80	82	82

CONTAMINATION

Soot %	%	█ 0.3	█ 0.2	█ 0.2	█ 0.3
Nitration (PA)	%	69	64	70	72
Sulfation (PA)	%	61	61	64	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	█ 4	█ 6	█ 8	█ 20
Sodium	ppm	█ 2	█ 2	█ 1	█ 3
Potassium	ppm	█ 2	█ 0	█ 2	█ 4

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	█ 12	█ 12	█ 17	█ 32
Copper	ppm	█ 2	█ 2	█ 3	█ 11
Lead	ppm	█ <1	█ 0	█ <1	█ 3
Tin	ppm	█ 1	█ <1	█ 1	█ 3
Aluminum	ppm	█ 5	█ 5	█ 12	▲ 66
Chromium	ppm	█ <1	█ <1	█ 1	█ 4
Molybdenum	ppm	█ 49	█ 89	█ 43	█ 36
Nickel	ppm	█ <1	█ 0	█ 0	█ 0
Titanium	ppm	<1	0	0	<1
Silver	ppm	█ 0	█ <1	█ 0	█ 0
Manganese	ppm	█ <1	█ 1	█ <1	█ 3
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	█ 1670	█ 1719	█ 1743	█ 1517
Magnesium	ppm	█ 494	█ 545	█ 546	█ 568
Zinc	ppm	█ 1087	█ 1138	█ 1167	█ 1102
Phosphorus	ppm	█ 870	█ 951	█ 970	█ 932
Barium	ppm	█ 0	█ 0	█ 2	█ 1
Boron	ppm	█ 27	█ 50	█ 34	█ 32

Depot: RIPTAM
Unique No: 10550571
Signed: Wes Davis
Report Date: 11 Jul 2023



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GRAPHS

