



CONSTRUCTION EQUIPMENT

VOLVO L90H 623556 - DIESEL ENGINE



Sample No: VCP442622
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP442622	VCP386035	VCP297929	VCP296132
Sample Date	07 Feb 2024	07 Nov 2022	21 Jun 2021	06 Jan 2021
Machine Hours	5387	4897	3976	3428
Oil Hours	0	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

RIPA AND ASSOCIATES

10149 FISHER AVENUE
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US 33619
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OIL CONDITION

Visc @ 100°C	cSt	12.8	13.2	13.4	13.3
Base Number (BN)	mg KOH/g	9.8	11.4	---	---
Oxidation (PA)	%	83	88	84	84

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other 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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	NEG	0.136	NEG
Soot %	%	0.3	0.3	0.3	0.3
Nitration (PA)	%	69	74	93	78
Sulfation (PA)	%	60	65	63	63
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	7	5	8
Sodium	ppm	0	1	3	4
Potassium	ppm	2	<1	1	10



WEAR METALS

Iron	ppm	12	10	9	12
Copper	ppm	1	<1	<1	<1
Lead	ppm	<1	0	0	<1
Tin	ppm	<1	<1	<1	0
Aluminum	ppm	▲ 20	8	2	10
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	46	45	31	42
Nickel	ppm	<1	0	0	0
Titanium	ppm	<1	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1522	1804	1592	1838
Magnesium	ppm	500	500	565	648
Zinc	ppm	1124	1161	974	1109
Phosphorus	ppm	872	985	885	1037
Barium	ppm	<1	0	0	0
Boron	ppm	36	38	31	24

Depot: RIPTAM
Unique No: 10870768
Signed: Don Baldrige
Report Date: 09 Feb 2024



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VOLVO GRAPHS

