



CONSTRUCTION EQUIPMENT

VOLVO L110H 631322 - DIESEL ENGINE



Sample No: VCP438850
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP438850	VCP440054	VCP440630	VCP393753
Sample Date	02 Jul 2024	16 Mar 2024	30 Nov 2023	01 Aug 2023
Machine Hours	11700	11137	10589	9947
Oil Hours	0	500	0	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	ABNORMAL	ABNORMAL

RIPA AND ASSOCIATES

10149 FISHER AVENUE
 TAMPA, FL
 US 33619
 Contact: PM Services
 PMServices@ripaconstruction.com
 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	12.2	13.3	14.0	12.9
Base Number (BN)	mg KOH/g	8.8	9.2	8.0	9.4
Oxidation (PA)	%	69	74	53	79

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.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.2	0.1	0.3
Nitration (PA)	%	59	65	57	64
Sulfation (PA)	%	55	56	47	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	6	4	7
Sodium	ppm	2	1	0	3
Potassium	ppm	2	1	3	2



WEAR METALS

Iron	ppm	13	21	6	23
Copper	ppm	1	1	<1	1
Lead	ppm	<1	<1	<1	<1
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	8	14	17	37
Chromium	ppm	<1	1	<1	2
Molybdenum	ppm	39	52	69	47
Nickel	ppm	0	<1	<1	<1
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	0	<1
Vanadium	ppm	0	<1	<1	0



ADDITIVES

Calcium	ppm	1479	1933	1697	1747
Magnesium	ppm	494	509	212	582
Zinc	ppm	1078	1289	1105	1237
Phosphorus	ppm	910	1051	917	1009
Barium	ppm	0	0	<1	0
Boron	ppm	28	33	58	27

Depot: RIPTAM
Unique No: 11113273
Signed: Wes Davis
Report Date: 09 Jul 2024



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GRAPHS

