



CONSTRUCTION EQUIPMENT

VOLVO A40G 352987 - DIESEL ENGINE



Sample No: VCP438586
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP438586	VCP434932	VCP406801	VCP355253
Sample Date	15 Apr 2024	29 Sep 2023	27 Jun 2023	08 Jun 2022
Machine Hours	3943	3262	2662	0
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	NORMAL	ATTENTION	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	12.4	12.5	11.7	10.5
Base Number (BN)	mg KOH/g	8.7	9.3	8.1	5.9
Oxidation (PA)	%	82	80	70	58

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.2	0.3	0.2
Nitration (PA)	%	68	68	74	88
Sulfation (PA)	%	61	60	59	56
Glycol	%	NEG	NEG	NEG	0.0
Fuel	%	<1.0	<1.0	<1.0	0.4
Silicon	ppm	7	6	6	25
Sodium	ppm	2	2	<1	3
Potassium	ppm	2	<1	1	2

Diagnosis
 Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Valve wear is indicated. 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.

WEAR METALS

Iron	ppm	9	7	10	16
Copper	ppm	19	6	31	414
Lead	ppm	<1	<1	<1	2
Tin	ppm	1	1	1	4
Aluminum	ppm	4	<1	<1	3
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	48	49	50	87
Nickel	ppm	5	<1	2	1
Titanium	ppm	<1	<1	0	0
Silver	ppm	<1	0	0	<1
Manganese	ppm	<1	<1	<1	3
Vanadium	ppm	<1	<1	<1	0

ADDITIVES

Calcium	ppm	1600	1711	1568	2272
Magnesium	ppm	482	558	635	17
Zinc	ppm	1063	1104	1063	1163
Phosphorus	ppm	924	918	857	1007
Barium	ppm	0	0	0	0
Boron	ppm	29	27	24	49

Depot: RIPTAM
Unique No: 10989466
Signed: Jonathan Hester
Report Date: 23 Apr 2024



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GRAPHS

