



CONSTRUCTION EQUIPMENT

607016 VOLVO A40F 342498 - DIESEL ENGINE



Sample No: VCP414659
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 607016



SAMPLE INFORMATION

Sample Number	VCP414659	VCP407863	VCP394251	VCP386760
Sample Date	18 Sep 2023	07 Jun 2023	27 Feb 2023	09 Sep 2022
Machine Hours	8432	7967	7463	6976
Oil Hours	500	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	ATTENTION	ATTENTION	NORMAL

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

OIL CONDITION

Visc @ 100°C	cSt	▲ 12.0	▲ 12.2	▲ 12.1	■ 12.6
Base Number (BN)	mg KOH/g	■ 9.8	■ 10.0	■ 9.3	■ 10.7
Oxidation (PA)	%	78	78	67	81

CONTAMINATION

Soot %	%	■ 0.2	■ 0.2	■ 0.2	■ 0.2
Nitration (PA)	%	59	63	63	72
Sulfation (PA)	%	59	60	55	62
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	■ 1.6	<1.0
Silicon	ppm	■ 8	■ 5	■ 6	■ 12
Sodium	ppm	■ 2	■ 1	■ 0	■ 2
Potassium	ppm	■ <1	■ 0	■ 1	■ <1

WEAR METALS

Iron	ppm	■ 8	■ 6	■ 7	■ 8
Copper	ppm	■ <1	■ <1	■ 2	■ 1
Lead	ppm	■ 1	■ 0	■ <1	■ <1
Tin	ppm	■ 1	■ <1	■ <1	■ <1
Aluminum	ppm	■ 6	■ 3	■ 5	■ 4
Chromium	ppm	■ <1	■ 0	■ <1	■ <1
Molybdenum	ppm	■ 42	■ 42	■ 51	■ 39
Nickel	ppm	■ 2	■ 1	■ 6	■ <1
Titanium	ppm	<1	0	1	■ 11
Silver	ppm	■ 0	■ 0	■ 0	0
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	0	<1	<1	0

ADDITIVES

Calcium	ppm	■ 1630	■ 1539	■ 1532	■ 1674
Magnesium	ppm	■ 522	■ 494	■ 504	■ 426
Zinc	ppm	■ 1183	■ 1028	■ 1109	■ 1093
Phosphorus	ppm	■ 947	■ 856	■ 901	■ 934
Barium	ppm	■ 0	■ 0	■ 2	■ 0
Boron	ppm	■ 31	■ 29	■ 22	■ 36

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. No other contaminants were detected in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot: RIPTAM
Unique No: 10708820
Signed: Don Baldrige
Report Date: 25 Oct 2023



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VOLVO GRAPHS

