



CONSTRUCTION EQUIPMENT

SWO-067561 ATLAS COPCO T45-10SF TMG18SEDO183 - DIESEL ENGINE



Sample No: VCP445721
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SWO-067561



SAMPLE INFORMATION

Sample Number	VCP445721	VCP428983	VCP424718	VCP402458
Sample Date	13 Nov 2023	31 Aug 2023	02 May 2023	06 Mar 2023
Machine Hours	6283	5911	5181	4738
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	SEVERE	MARGINAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	7.5	12.2	13.7	13.8
Base Number (BN)	mg KOH/g	7.2	9.9	8.7	9.4
Oxidation (PA)	%	66	82	86	92

Diagnosis

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.4	0.5	0.5
Nitration (PA)	%	70	83	85	89
Sulfation (PA)	%	52	60	60	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	25.0	3.5	<1.0	<1.0
Silicon	ppm	6	7	8	9
Sodium	ppm	2	3	2	2
Potassium	ppm	0	2	<1	0



WEAR METALS

Iron	ppm	5	10	19	18
Copper	ppm	<1	3	32	37
Lead	ppm	2	3	2	2
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	2	3	4	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	32	48	53	49
Nickel	ppm	<1	0	0	0
Titanium	ppm	0	0	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1072	1647	1787	1639
Magnesium	ppm	458	706	714	608
Zinc	ppm	846	1317	1225	1134
Phosphorus	ppm	690	996	1004	876
Barium	ppm	0	0	0	0
Boron	ppm	15	19	20	19

Depot: WHIGUN
Unique No: 10743042
Signed: Wes Davis
Report Date: 20 Nov 2023



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GRAPHS

