



CONSTRUCTION EQUIPMENT

W05003971 VOLVO A45G 342686 - DIESEL ENGINE



Sample No: VCP189746
Oil Type: MOBIL 15W40
Job No: W05003971



SAMPLE INFORMATION

Sample Number	VCP189746	VCP416115	VCP420842	VCP418030
Sample Date	11 Dec 2023	26 Oct 2023	29 Aug 2023	23 Jun 2023
Machine Hours	6622	6352	6052	5770
Oil Hours	250	250	500	250
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.8	12.9	12.8	12.8
Base Number (BN)	mg KOH/g	8.9	9.1	8.7	8.7
Oxidation (PA)	%	65	64	63	65



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.2	0.2
Nitration (PA)	%	54	53	53	58
Sulfation (PA)	%	62	62	62	62
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	5	5	4
Sodium	ppm	<1	0	2	2
Potassium	ppm	0	0	3	1



WEAR METALS

Iron	ppm	3	1	3	2
Copper	ppm	<1	<1	<1	0
Lead	ppm	0	0	<1	0
Tin	ppm	0	<1	<1	0
Aluminum	ppm	3	3	2	<1
Chromium	ppm	0	0	<1	0
Molybdenum	ppm	116	121	129	125
Nickel	ppm	<1	0	<1	0
Titanium	ppm	0	0	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	0
Vanadium	ppm	<1	0	<1	0



ADDITIVES

Calcium	ppm	1511	1634	1652	1671
Magnesium	ppm	584	671	711	654
Zinc	ppm	890	949	953	951
Phosphorus	ppm	724	791	788	776
Barium	ppm	0	0	0	0
Boron	ppm	318	328	364	351

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 acceptable for the time in service.

Depot: VOLVO0002
Unique No: 10789536
Signed: Sean Felton
Report Date: 18 Dec 2023

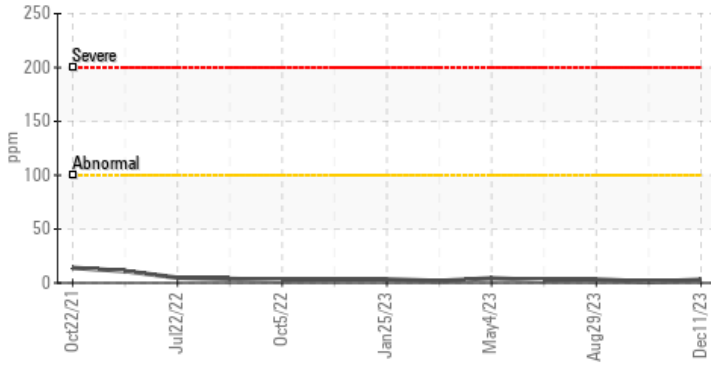


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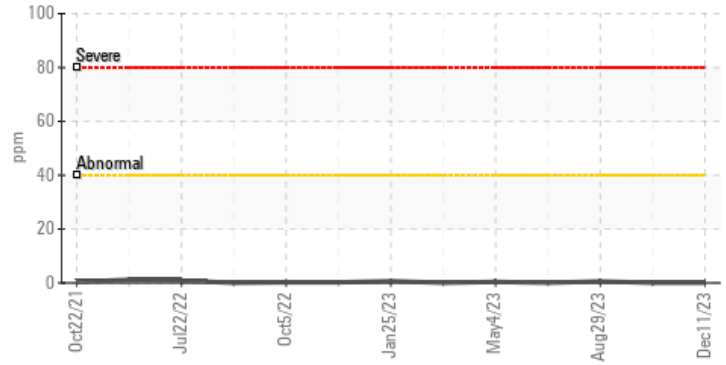


GRAPHS

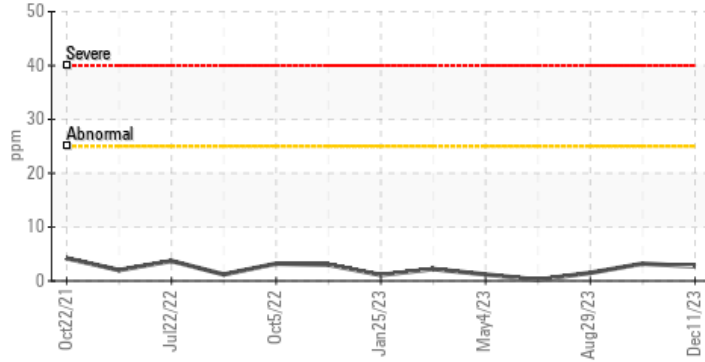
Iron (ppm)



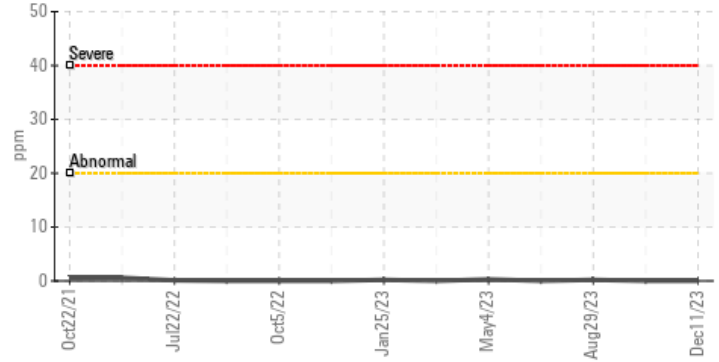
Lead (ppm)



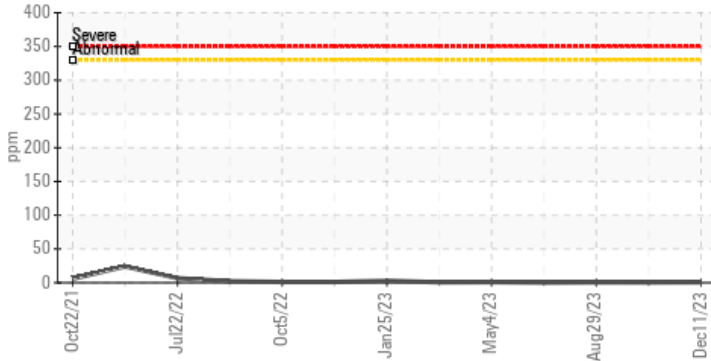
Aluminum (ppm)



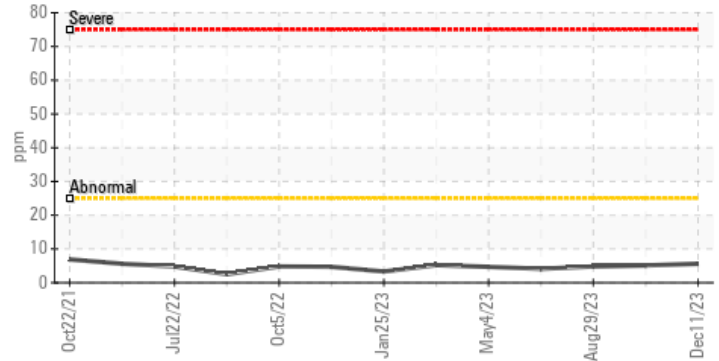
Chromium (ppm)



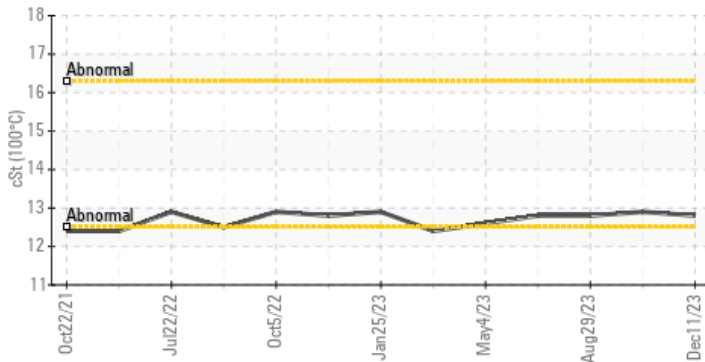
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

