



CONSTRUCTION EQUIPMENT

TRANSPORT LEASING VOLVO L220H 2268 - DIESEL ENGINE



Sample No: VCP429829
Oil Type: MOBIL 15W40
Job No: TRANSPORT LEASING



SAMPLE INFORMATION

Sample Number	VCP429829	VCP401923	VCP400156	VCP371212
Sample Date	26 Jan 2024	26 Dec 2023	31 Oct 2023	03 Oct 2023
Machine Hours	23943	23385	22857	22421
Oil Hours	0	0	0	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	MARGINAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.2	■ 12.8	■ 12.6	■ 13.0
Base Number (BN)	mg KOH/g	■ 8.6	■ 9.0	■ 9.9	■ 9.5
Oxidation (PA)	%	■ 54	■ 58	■ 57	■ 58



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	■ 0.1	■ 0.2	■ 0.1	■ 0.2
Nitration (PA)	%	■ 53	■ 58	■ 51	■ 53
Sulfation (PA)	%	■ 50	■ 51	■ 52	■ 53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	■ 0.5	<1.0	<1.0	<1.0
Silicon	ppm	■ 4	■ 3	■ 2	■ 2
Sodium	ppm	■ 0	■ 2	■ 2	■ 4
Potassium	ppm	■ 2	■ 0	■ 1	■ <1



WEAR METALS

Iron	ppm	■ 3	■ 3	■ 2	■ 9
Copper	ppm	■ 2	■ 4	■ 2	■ 2
Lead	ppm	■ 1	■ 0	■ <1	■ 0
Tin	ppm	■ 1	■ <1	■ 0	■ 0
Aluminum	ppm	■ 3	■ 2	■ 1	■ <1
Chromium	ppm	■ <1	■ <1	■ 0	■ 0
Molybdenum	ppm	■ 84	■ 67	■ 54	■ 61
Nickel	ppm	■ 1	■ 0	■ 0	■ 0
Titanium	ppm	<1	0	0	0
Silver	ppm	■ <1	■ 0	■ 0	■ 0
Manganese	ppm	■ 1	■ <1	■ 0	■ 0
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	■ 1145	■ 1089	1103	1102
Magnesium	ppm	■ 892	■ 933	■ 885	986
Zinc	ppm	■ 1136	■ 1207	■ 1073	■ 1289
Phosphorus	ppm	■ 913	■ 1000	■ 818	■ 1038
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 51	■ 15	■ 4	■ 5

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. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Depot: VOLVO1835
Unique No: 10869639
Signed: Jonathan Hester
Report Date: 09 Feb 2024

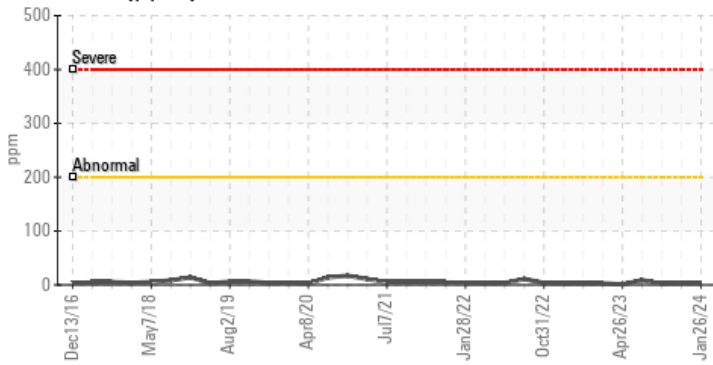


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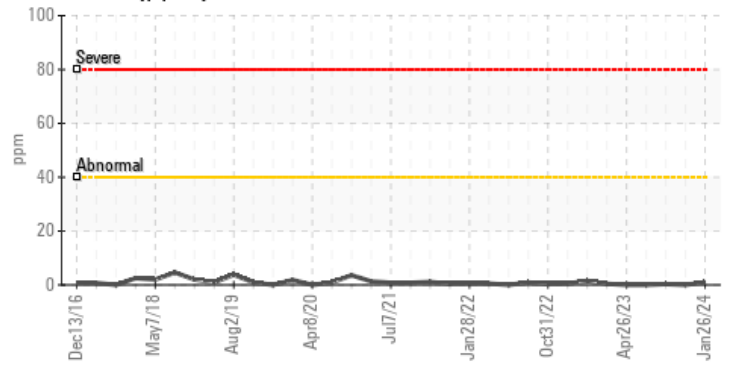


GRAPHS

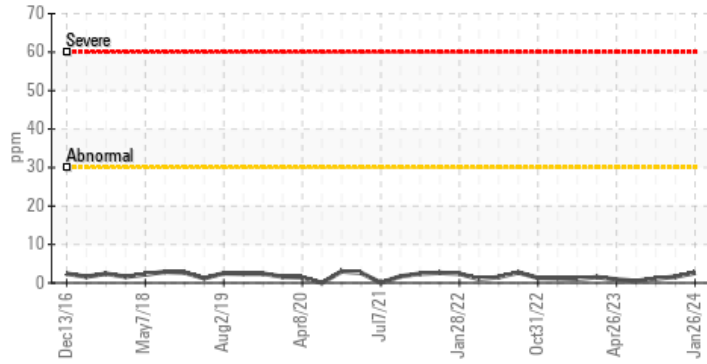
Iron (ppm)



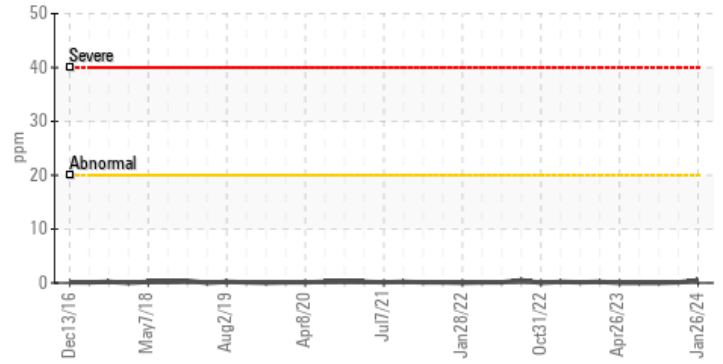
Lead (ppm)



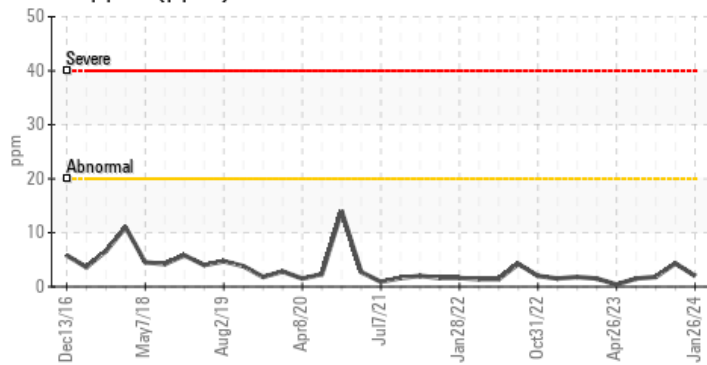
Aluminum (ppm)



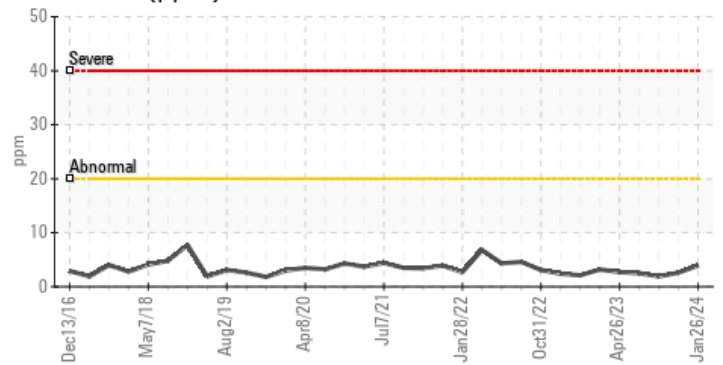
Chromium (ppm)



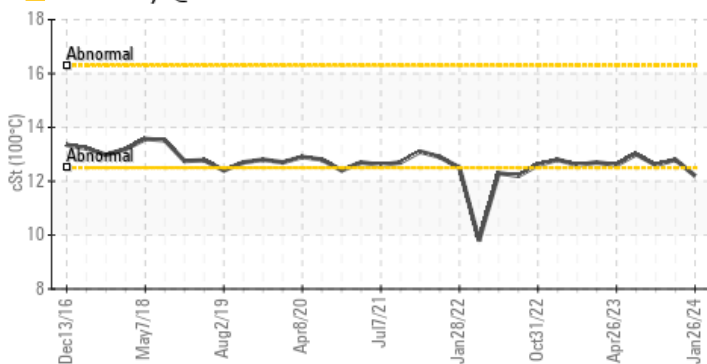
Copper (ppm)



Silicon (ppm)



▲ Viscosity @ 100°C



Base Number

