



CONSTRUCTION EQUIPMENT

SW1032187 MGC VOLVO L110H 631398 - DIESEL ENGINE



Sample No: VCP442950
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SW1032187 MGC



SAMPLE INFORMATION

Sample Number	VCP442950	VCP397985	VCP316158	VCP297398
Sample Date	04 Apr 2024	13 Jan 2023	11 Jun 2021	04 Dec 2020
Machine Hours	3107	2544	2025	1744
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	ABNORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.8	13.1	13.2	14.0
Base Number (BN)	mg KOH/g	9.5	10.8	---	---
Oxidation (PA)	%	65	77	86	91



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.3	0.3	0.5
Nitration (PA)	%	61	68	60	74
Sulfation (PA)	%	53	59	66	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	9	6	15
Sodium	ppm	2	2	4	4
Potassium	ppm	0	<1	<1	3

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The aluminum level is abnormal. All other 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 suitable for further service.



WEAR METALS

Iron	ppm	10	15	15	26
Copper	ppm	<1	2	2	5
Lead	ppm	0	<1	<1	0
Tin	ppm	0	2	1	0
Aluminum	ppm	▲ 16	▲ 14	8	▲ 23
Chromium	ppm	0	1	1	2
Molybdenum	ppm	58	45	59	39
Nickel	ppm	0	<1	<1	<1
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	<1	<1	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	<1	0	0



ADDITIVES

Calcium	ppm	1362	1580	1643	1808
Magnesium	ppm	954	469	487	538
Zinc	ppm	1308	1052	997	884
Phosphorus	ppm	1127	877	900	743
Barium	ppm	0	1	0	0
Boron	ppm	4	43	64	40

Depot: VOLVO6174
Unique No: 10977086
Signed: Sean Felton
Report Date: 15 Apr 2024

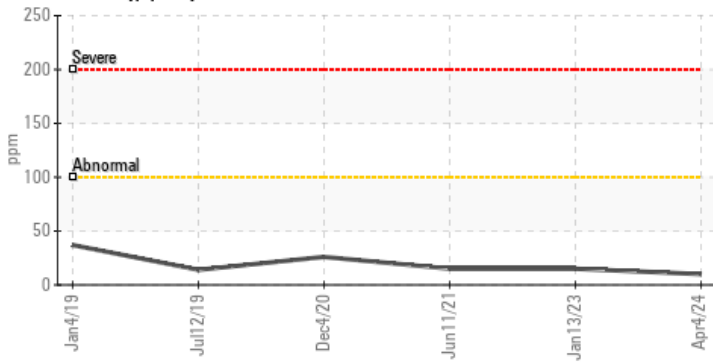


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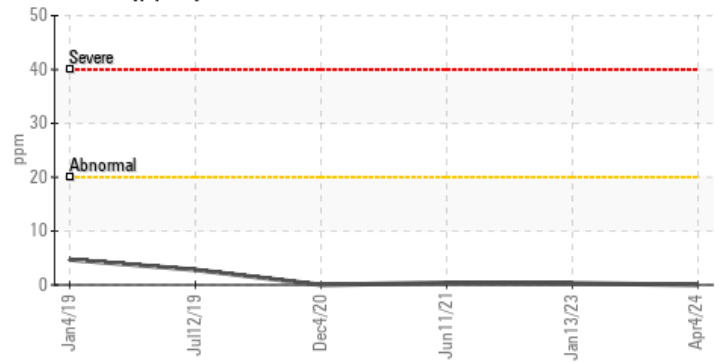


GRAPHS

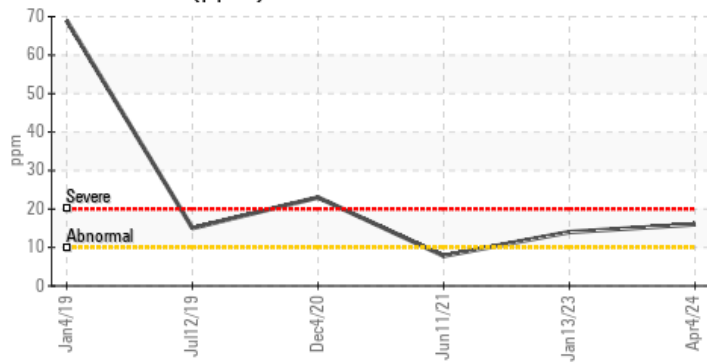
Iron (ppm)



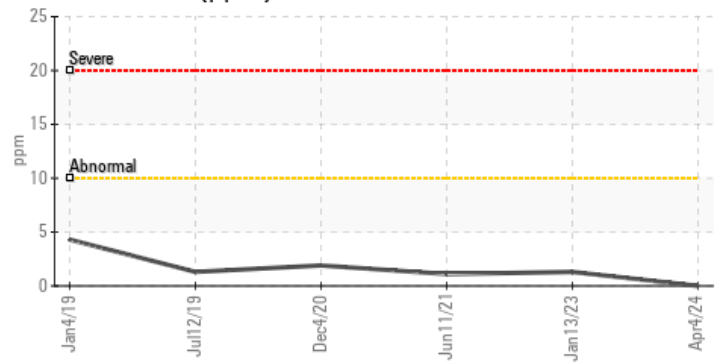
Lead (ppm)



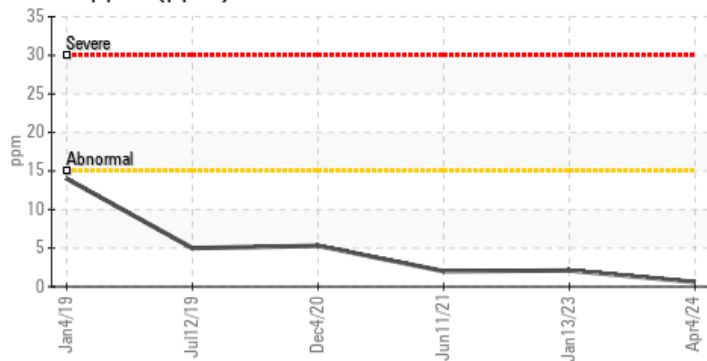
Aluminum (ppm)



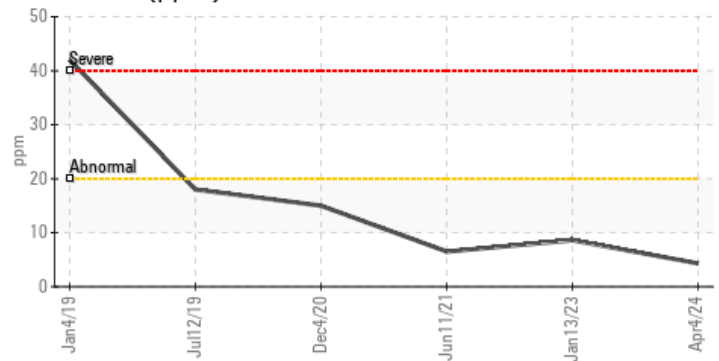
Chromium (ppm)



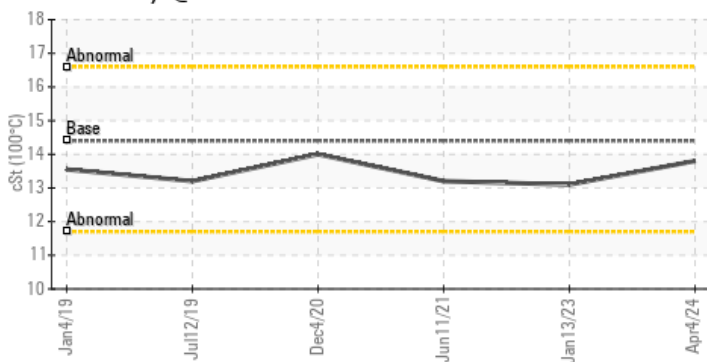
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

