



CONSTRUCTION EQUIPMENT

687086 DIPRO MMC S190 91902 - DIESEL ENGINE



Sample No: VCP447056
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 687086 DIPRO



SAMPLE INFORMATION

Sample Number	VCP447056	VCP399412	---	---
Sample Date	28 Mar 2024	15 Mar 2023	---	---
Machine Hours	3806	2594	---	---
Oil Hours	500	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	NORMAL	---	---

ALTA EQUIPMENT COMPANY - METRO WEST
 56195 PONTIAC TRAIL
 NEW HUDSON, MI
 US 48165
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 T: (313)348-8861
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OIL CONDITION

Visc @ 100°C	cSt	█ 15.5	█ 13.0	---	---
Base Number (BN)	mg KOH/g	▲ 2.8	█ 5.5	---	---
Oxidation (PA)	%	177	108	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Aluminum and iron ppm levels are abnormal. There is no indication of any contamination in the oil. The BN level is low.



CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	█ 0.4	█ 0.2	---	---
Nitration (PA)	%	173	113	---	---
Sulfation (PA)	%	96	76	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	█ 8	█ 7	---	---
Sodium	ppm	█ 6	█ 0	---	---
Potassium	ppm	█ <1	█ 2	---	---



WEAR METALS

Iron	ppm	▲ 104	█ 36	---	---
Copper	ppm	█ 12	█ 5	---	---
Lead	ppm	█ 1	█ <1	---	---
Tin	ppm	█ <1	█ 3	---	---
Aluminum	ppm	▲ 23	█ 5	---	---
Chromium	ppm	█ 2	█ 2	---	---
Molybdenum	ppm	█ 66	█ 57	---	---
Nickel	ppm	█ <1	█ 0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	█ 0	█ 0	---	---
Manganese	ppm	█ 1	█ 1	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	█ 1750	█ 1153	---	---
Magnesium	ppm	█ 671	█ 881	---	---
Zinc	ppm	█ 1243	█ 1214	---	---
Phosphorus	ppm	█ 1107	█ 995	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ 17	█ 3	---	---

Depot: VOLVO2990
Unique No: 10968718
Signed: Angela Borella
Report Date: 12 Apr 2024

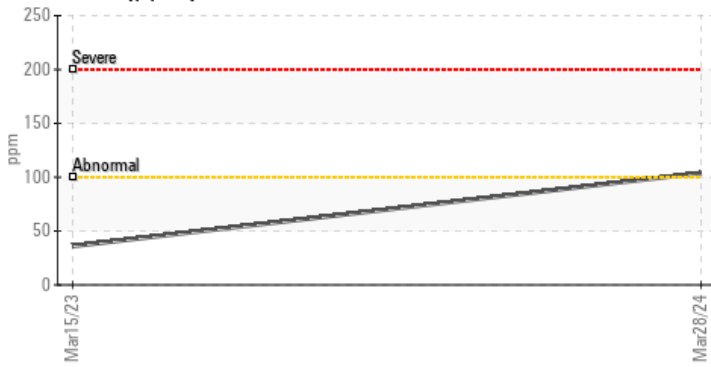


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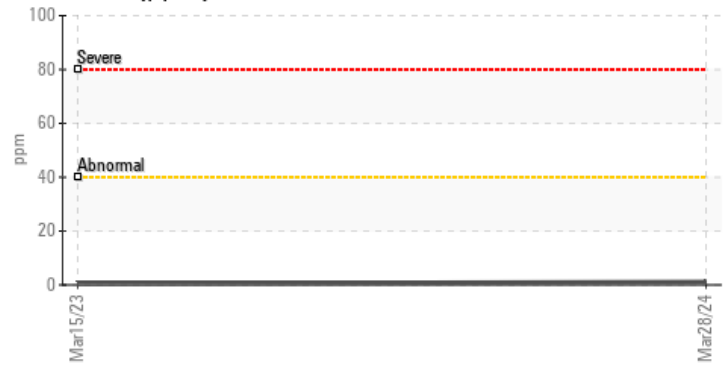


GRAPHS

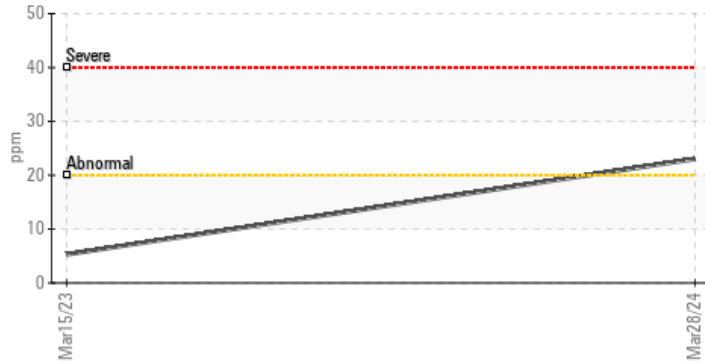
▲ Iron (ppm)



Lead (ppm)



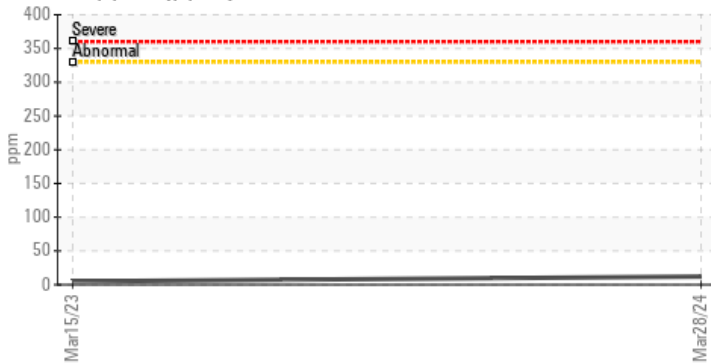
▲ Aluminum (ppm)



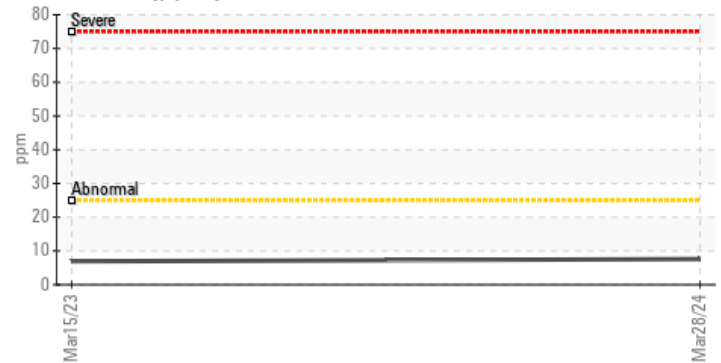
Chromium (ppm)



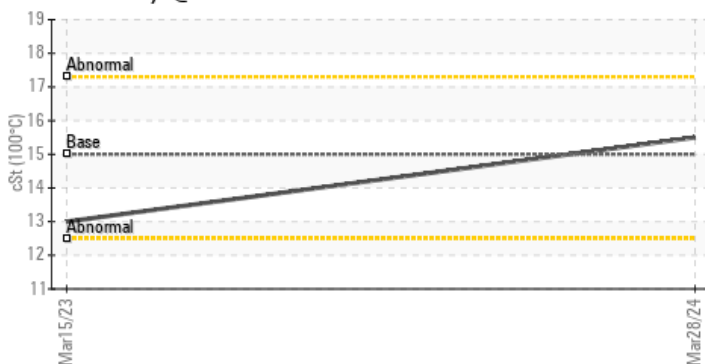
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



▲ Base Number

