



CONSTRUCTION EQUIPMENT

2241 IAA FREMONT VOLVO L90G 3938 - DIESEL ENGINE



Sample No: VCP446591
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 2241 IAA FREMONT



SAMPLE INFORMATION

Sample Number	VCP446591	VCP439436	VCP369645	VCP345027
Sample Date	05 Apr 2024	18 Jan 2024	25 Apr 2023	24 Mar 2022
Machine Hours	13387	16000	15577	14684
Oil Hours	0	0	0	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ATTENTION	ABNORMAL	NORMAL

VCES- VOLVO CONSTRUCTION EQUIPMENT
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OIL CONDITION

Visc @ 100°C	cSt	12.7	13.0	13.3	13.0
Base Number (BN)	mg KOH/g	10.7	10.5	9.4	11.9
Oxidation (PA)	%	80	80	80	90



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.2	0.3	0.3
Nitration (PA)	%	54	56	63	73
Sulfation (PA)	%	60	61	57	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	7	8	9	8
Sodium	ppm	54	86	183	23
Potassium	ppm	<1	0	0	0



WEAR METALS

Iron	ppm	30	49	64	42
Copper	ppm	<1	1	<1	1
Lead	ppm	0	0	0	0
Tin	ppm	<1	0	0	<1
Aluminum	ppm	5	7	11	4
Chromium	ppm	0	1	1	1
Molybdenum	ppm	42	44	42	44
Nickel	ppm	<1	0	0	0
Titanium	ppm	0	<1	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	1	<1
Vanadium	ppm	0	<1	<1	0



ADDITIVES

Calcium	ppm	1799	1841	1734	1959
Magnesium	ppm	556	554	502	604
Zinc	ppm	1211	1244	1152	1192
Phosphorus	ppm	1023	1023	938	1104
Barium	ppm	0	0	0	0
Boron	ppm	39	39	52	33

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 suitable for further service.

Depot: VOLVO4487
Unique No: 10976394
Signed: Wes Davis
Report Date: 12 Apr 2024

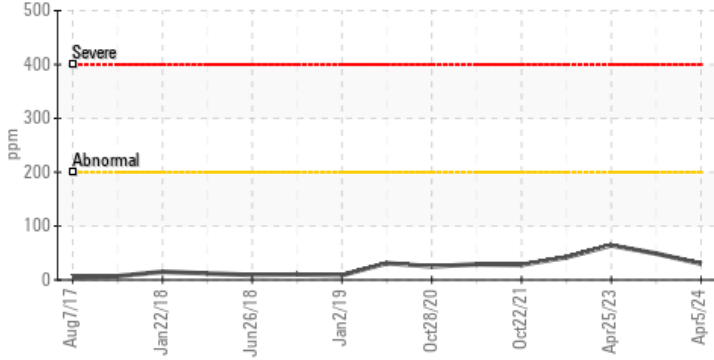


CONSTRUCTION EQUIPMENT

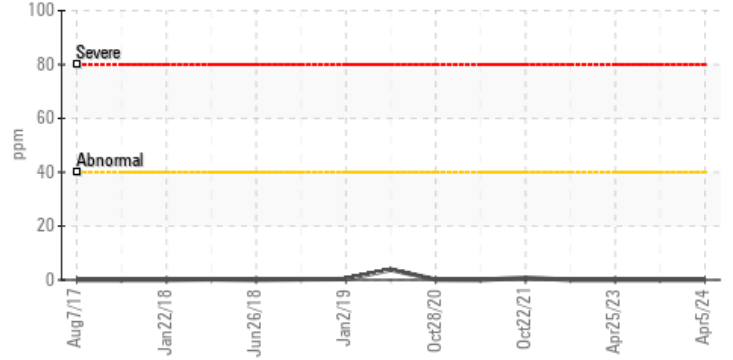


GRAPHS

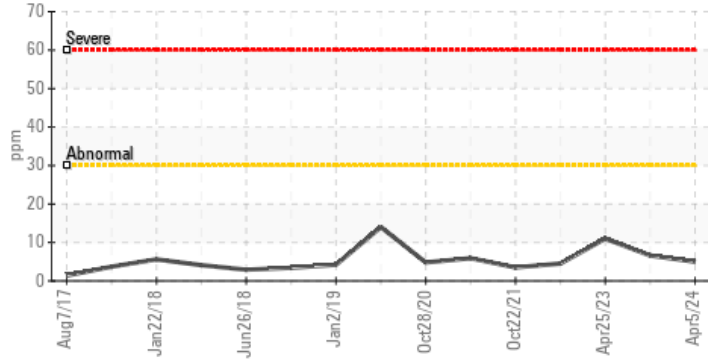
Iron (ppm)



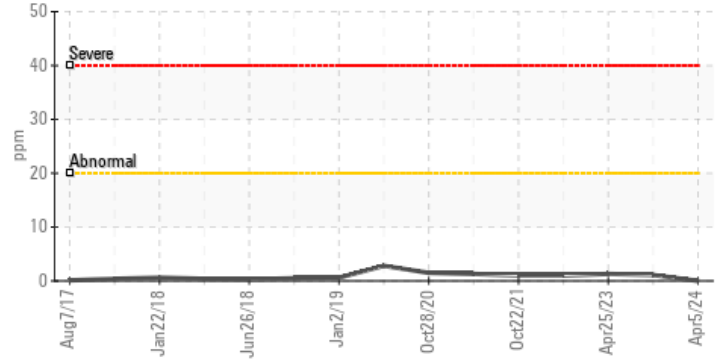
Lead (ppm)



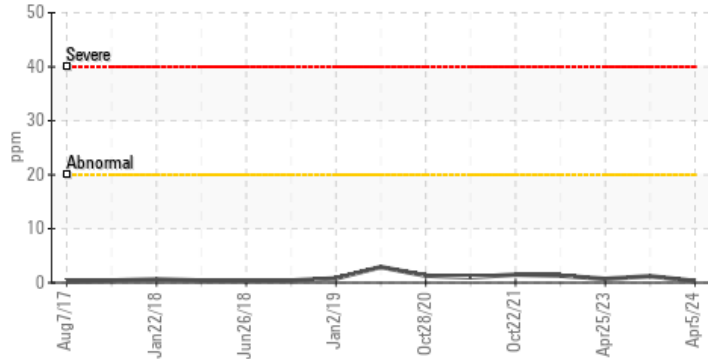
Aluminum (ppm)



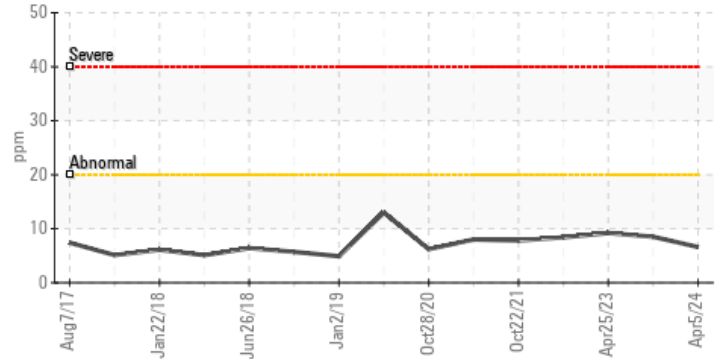
Chromium (ppm)



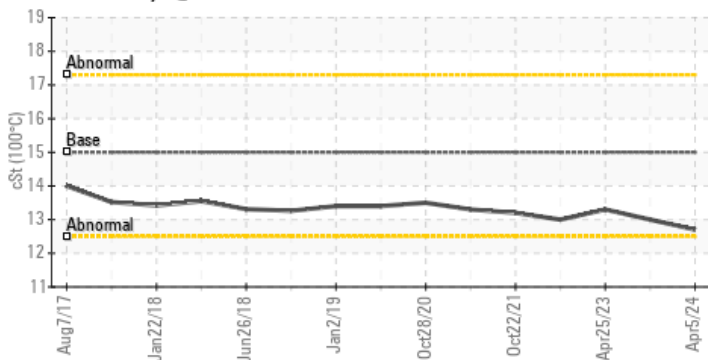
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

