



CONSTRUCTION EQUIPMENT

VOLVO A40G 352842 - DIESEL ENGINE



Sample No: VCP454114
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP454114	VCP440785	VCP414671	VCP424148
Sample Date	08 Jan 2024	27 Nov 2023	11 Sep 2023	11 May 2023
Machine Hours	4505	4010	3555	3070
Oil Hours	0	500	0	500
Oil Changed	Changed	Changed	N/A	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

RIPA AND ASSOCIATES
 10149 FISHER AVENUE
 TAMPA, FL
 US 33619
 Contact: PM Services
 PMServices@ripaconstruction.com
 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	12.1	12.4	12.3	12.4
Base Number (BN)	mg KOH/g	10.1	10.2	9.2	8.8
Oxidation (PA)	%	80	82	79	84

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.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.2	0.7	0.2
Nitration (PA)	%	57	63	67	66
Sulfation (PA)	%	60	60	63	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	0.7
Silicon	ppm	3	5	4	6
Sodium	ppm	0	2	3	2
Potassium	ppm	3	0	1	1



WEAR METALS

Iron	ppm	4	5	14	6
Copper	ppm	1	1	17	1
Lead	ppm	<1	0	<1	0
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	1	1	4	2
Chromium	ppm	0	0	<1	<1
Molybdenum	ppm	37	40	47	47
Nickel	ppm	<1	1	<1	1
Titanium	ppm	1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	<1	<1	0



ADDITIVES

Calcium	ppm	1641	1716	1818	1628
Magnesium	ppm	460	493	532	525
Zinc	ppm	1076	1116	1199	1150
Phosphorus	ppm	917	968	969	947
Barium	ppm	<1	0	0	0
Boron	ppm	35	37	29	40

Depot: RIPTAM
Unique No: 10870784
Signed: Jonathan Hester
Report Date: 12 Feb 2024

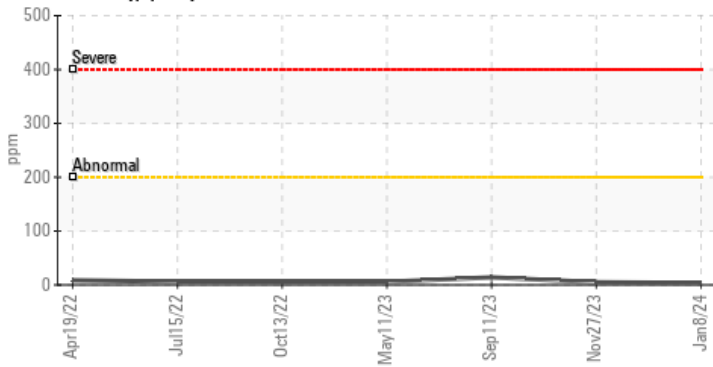


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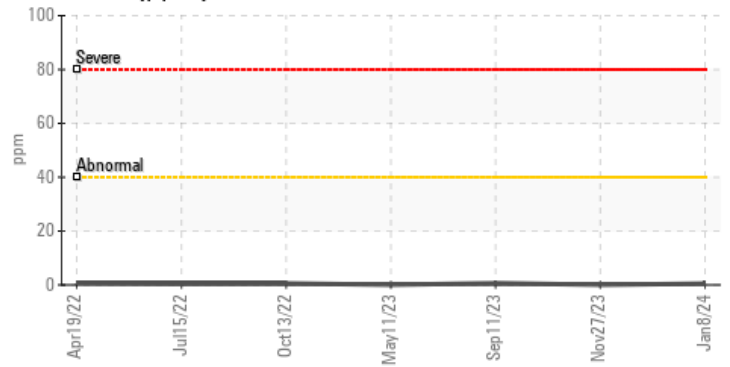


GRAPHS

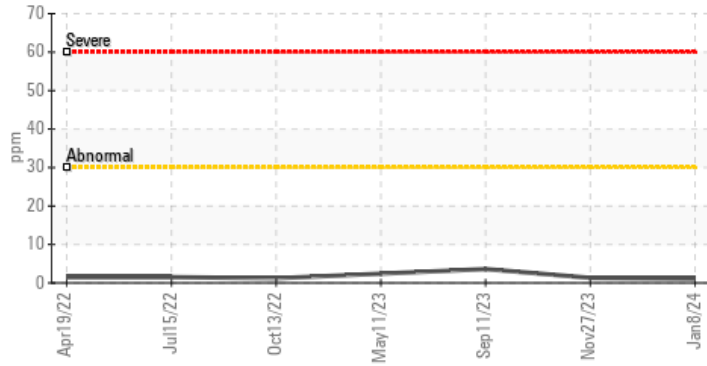
Iron (ppm)



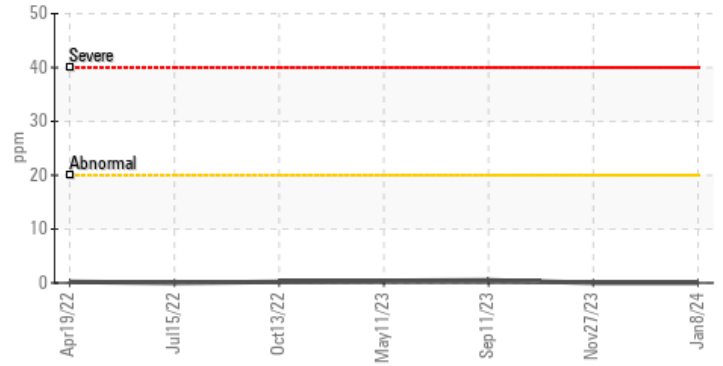
Lead (ppm)



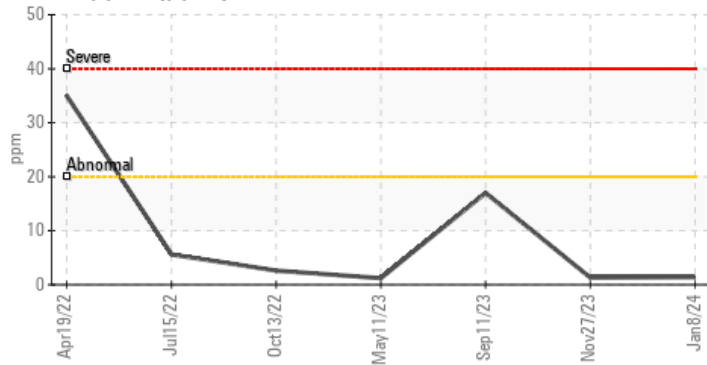
Aluminum (ppm)



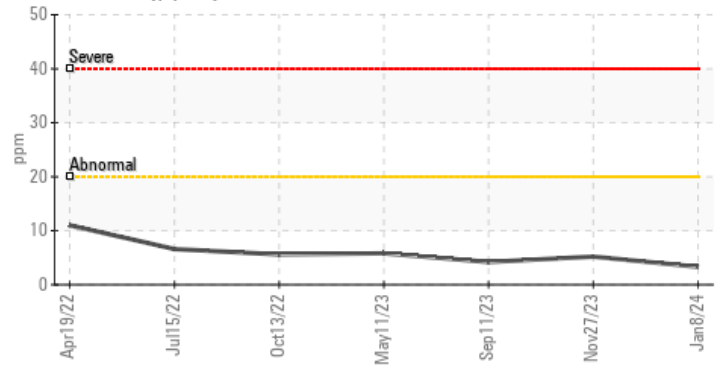
Chromium (ppm)



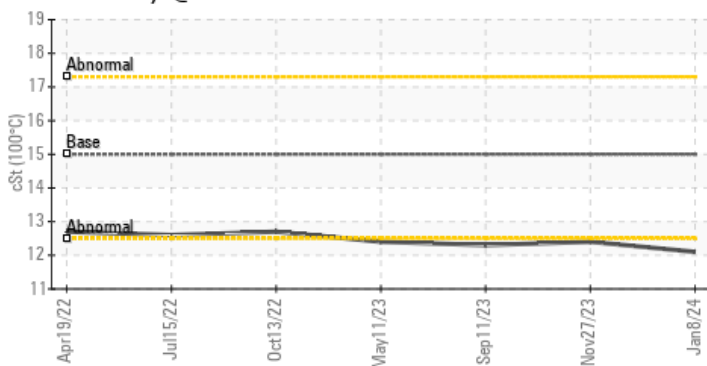
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

