



CONSTRUCTION EQUIPMENT

D12689 WM A1 VOLVO L70H 624717 - DIESEL ENGINE



Sample No: VCP418998
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: D12689 WM A1



SAMPLE INFORMATION

Sample Number	VCP418998	VCP418686	VCP381289	VCP419546
Sample Date	08 Sep 2023	04 Aug 2023	28 Jun 2023	24 May 2023
Machine Hours	2966	2770	2570	2349
Oil Hours	617	421	1051	132
Oil Changed	Changed	Not Changd	Changed	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ARING EQUIPMENT COMPANY INC - MAIN (MILWAUKEE)
 13001 W SILVERE SPRING DR
 BUTLER, WI
 US 53007
 Contact: GLENN OTTENBACHER
 gottenbacher@aring.com
 T: (262)282-0715
 F: (262)781-5053



OIL CONDITION

Visc @ 100°C	cSt	13.48	12.5	13.7	13.3
Base Number (BN)	mg KOH/g	10.0	10.5	8.3	9.4
Oxidation (PA)	%	80	83	87	86



CONTAMINATION

Soot %	%	0.7	0.4	1.1	1
Nitration (PA)	%	65	56	83	83
Sulfation (PA)	%	63	62	64	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	6	8	7
Sodium	ppm	2	1	2	0
Potassium	ppm	<1	<1	2	2



WEAR METALS

Iron	ppm	15	8	31	27
Copper	ppm	1	<1	4	2
Lead	ppm	<1	<1	0	0
Tin	ppm	<1	<1	2	1
Aluminum	ppm	8	4	11	7
Chromium	ppm	1	<1	2	2
Molybdenum	ppm	45	43	66	56
Nickel	ppm	0	0	0	<1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1866	1796	1984	1813
Magnesium	ppm	549	530	518	459
Zinc	ppm	1245	1200	1242	1111
Phosphorus	ppm	990	964	993	923
Barium	ppm	0	0	0	0
Boron	ppm	29	44	34	28

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: VOLVO0069
Unique No: 10647150
Signed: Wes Davis
Report Date: 20 Sep 2023

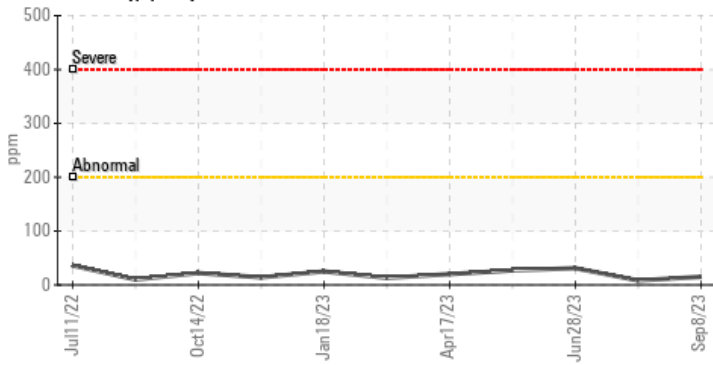


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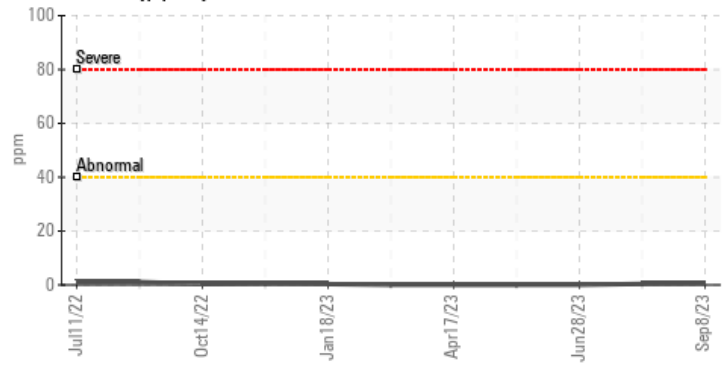


GRAPHS

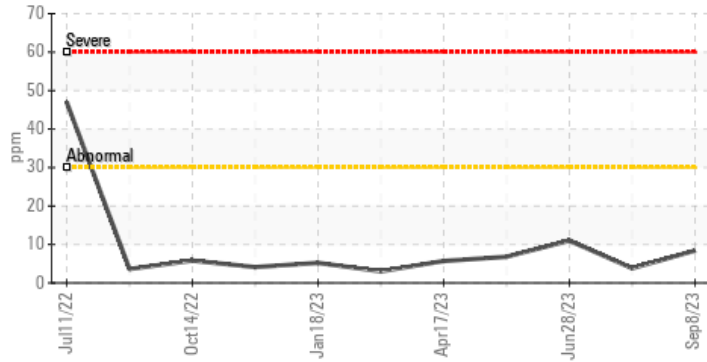
Iron (ppm)



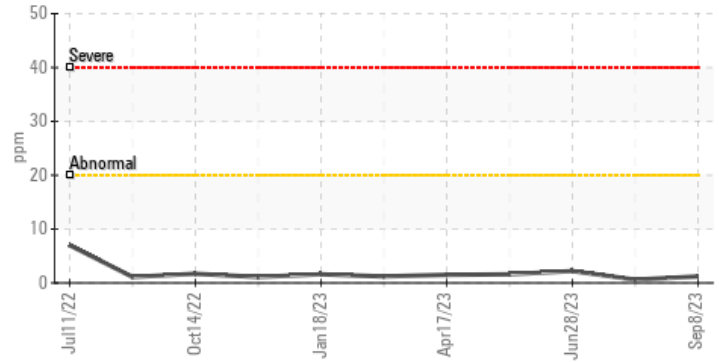
Lead (ppm)



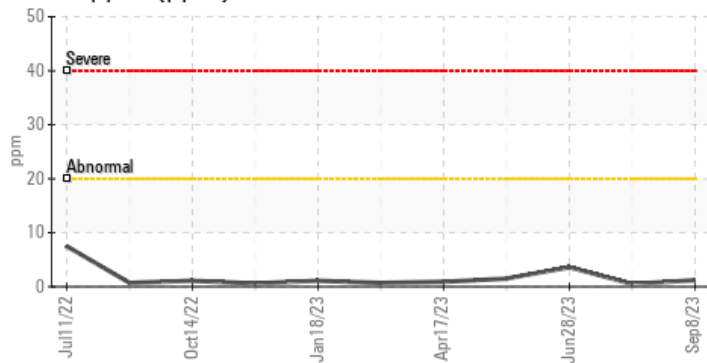
Aluminum (ppm)



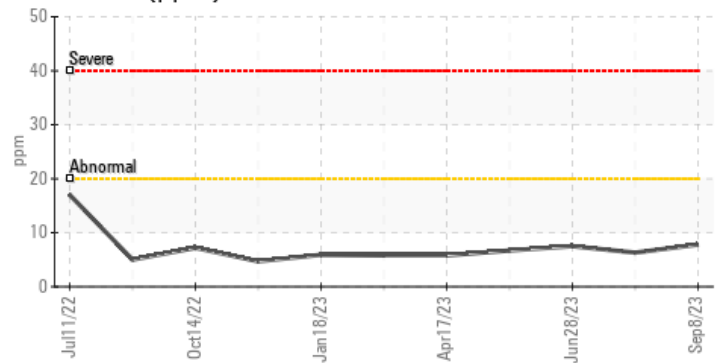
Chromium (ppm)



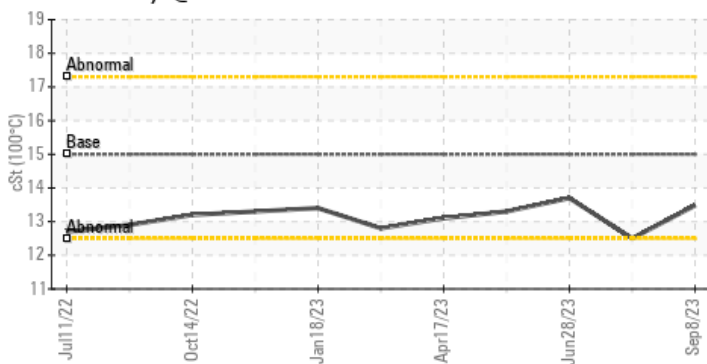
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

