



CONSTRUCTION EQUIPMENT

VOLVO L90G 617046 - DIESEL ENGINE



Sample No: VCP408310
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP408310	VCP365748	VCP343430	VCP309102
Sample Date	22 Jun 2023	17 Jan 2023	26 Oct 2021	13 May 2021
Machine Hours	13603	13020	11109	10517
Oil Hours	500	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	NORMAL	NORMAL

IAA - INSURANCE AUTO AUCTIONS - SUFFOLK
 1389 PORTSMOUTH BLVD
 SUFFOLK, VA
 US 23434
 Contact: Service Manager

OIL CONDITION

Visc @ 100°C	cSt	12.8	13.5	12.9	13.0
Base Number (BN)	mg KOH/g	11.0	10.6	---	---
Oxidation (PA)	%	80	81	82	76

T:
F:

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

Soot %	%	0.6	0.9	0.3	0.2
Nitration (PA)	%	65	76	61	57
Sulfation (PA)	%	62	62	62	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	11	▲ 24	6	4
Sodium	ppm	3	2	3	3
Potassium	ppm	<1	0	0	<1

WEAR METALS

Iron	ppm	34	60	7	5
Copper	ppm	2	9	4	<1
Lead	ppm	0	4	<1	<1
Tin	ppm	0	1	<1	<1
Aluminum	ppm	7	▲ 15	4	4
Chromium	ppm	<1	2	<1	<1
Molybdenum	ppm	47	43	47	36
Nickel	ppm	0	<1	0	<1
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	1821	1630	1772	1583
Magnesium	ppm	618	548	530	475
Zinc	ppm	1285	1147	1126	1013
Phosphorus	ppm	1049	933	971	907
Barium	ppm	0	0	0	0
Boron	ppm	40	24	39	53

Depot: IAASUF
Unique No: 10536786
Signed: Wes Davis
Report Date: 02 Jul 2023

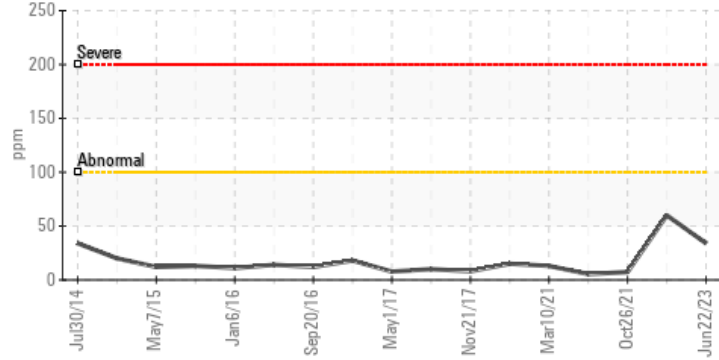


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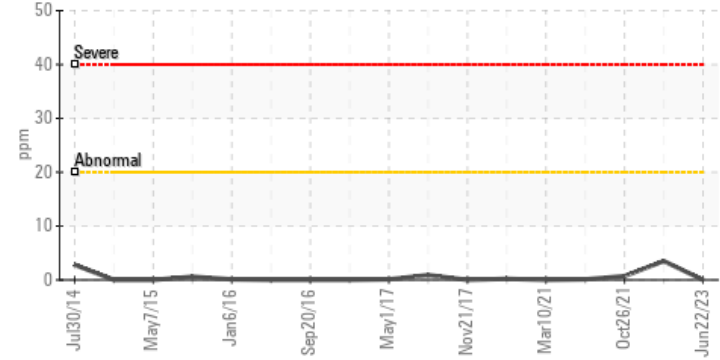


GRAPHS

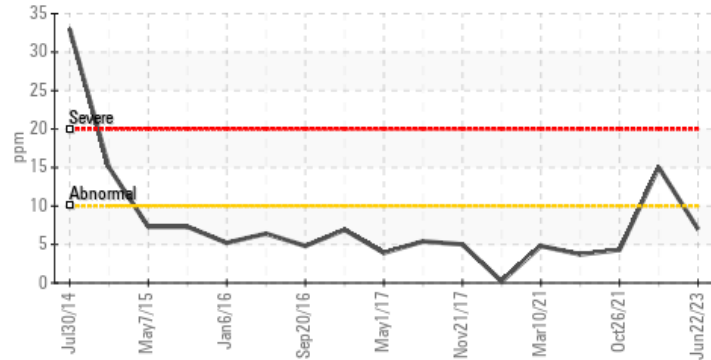
Iron (ppm)



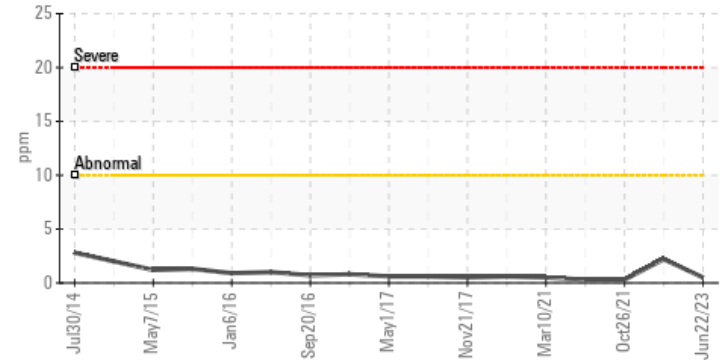
Lead (ppm)



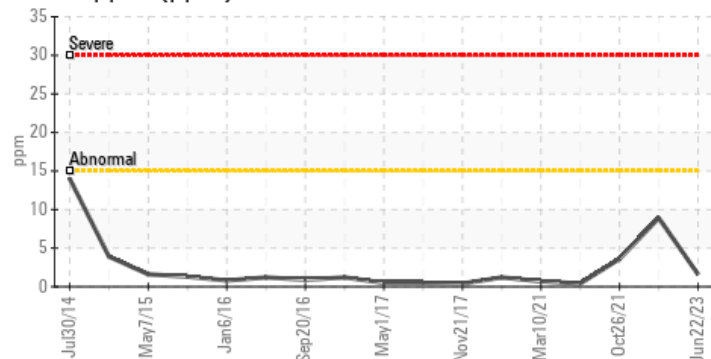
Aluminum (ppm)



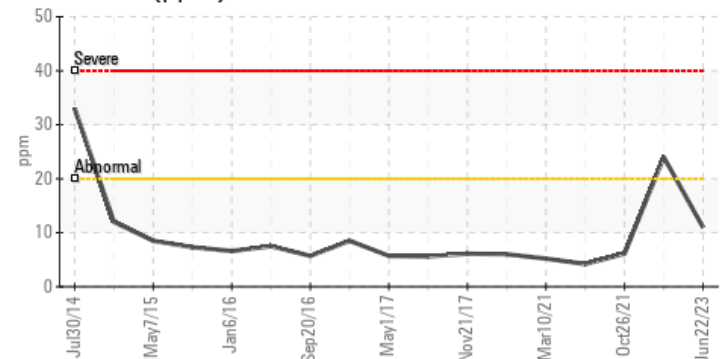
Chromium (ppm)



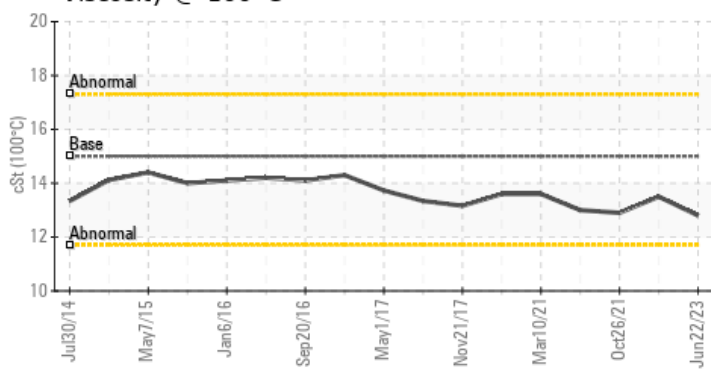
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

