



CONSTRUCTION EQUIPMENT

VOLVO L90H 624038 - DIESEL ENGINE



Sample No: VCP443583
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP443583	VCP409198	VCP394257	VCP387869
Sample Date	05 Jun 2024	27 Jun 2023	27 Feb 2023	12 Sep 2022
Machine Hours	8718	7286	6648	6134
Oil Hours	0	500	500	500
Oil Changed	Changed	Changed	Changed	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	12.7	12.4	12.7	13.2
Base Number (BN)	mg KOH/g	9.6	10.4	10.6	11.8
Oxidation (PA)	%	76	80	81	86

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 %	%	0.6	0.4	0.3	0.4
Nitration (PA)	%	67	63	61	64
Sulfation (PA)	%	59	60	61	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	6	4	7
Sodium	ppm	1	2	0	1
Potassium	ppm	1	0	2	<1



WEAR METALS

Iron	ppm	17	8	8	8
Copper	ppm	1	<1	<1	<1
Lead	ppm	0	0	0	0
Tin	ppm	<1	<1	<1	0
Aluminum	ppm	5	5	8	4
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	46	41	41	40
Nickel	ppm	<1	0	<1	0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	<1	0



ADDITIVES

Calcium	ppm	1664	1559	1577	1685
Magnesium	ppm	474	490	465	476
Zinc	ppm	1090	1035	1070	1068
Phosphorus	ppm	879	859	871	896
Barium	ppm	0	0	2	0
Boron	ppm	28	27	35	33

Depot: RIPTAM
Unique No: 11073542
Signed: Wes Davis
Report Date: 12 Jun 2024

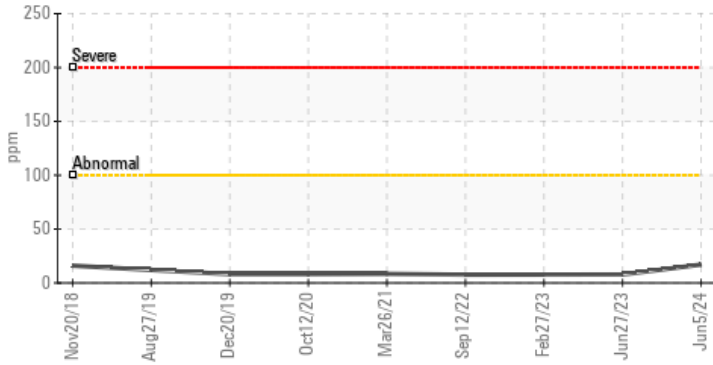


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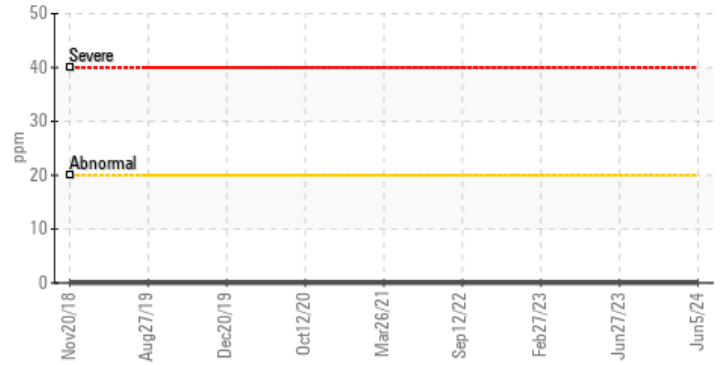


GRAPHS

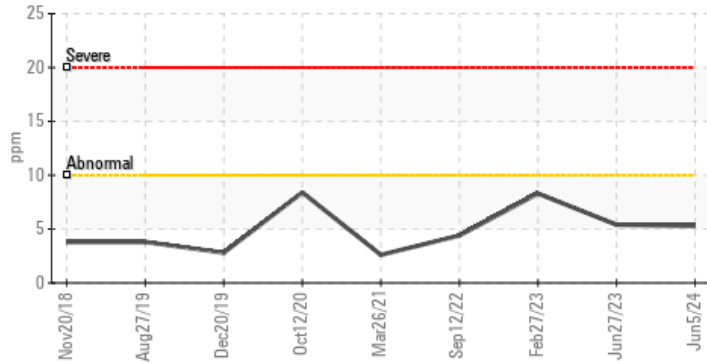
Iron (ppm)



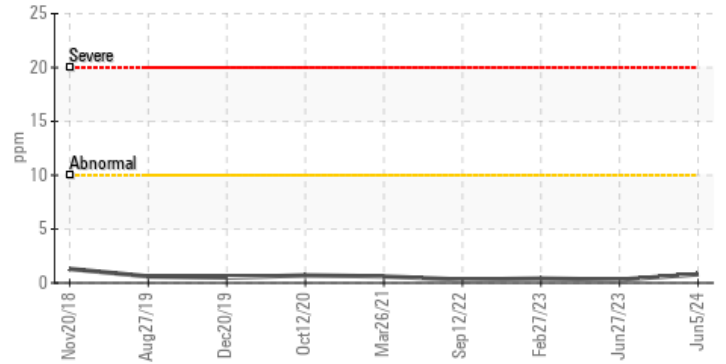
Lead (ppm)



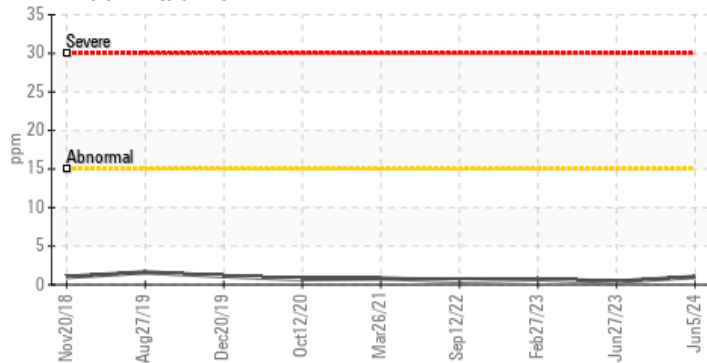
Aluminum (ppm)



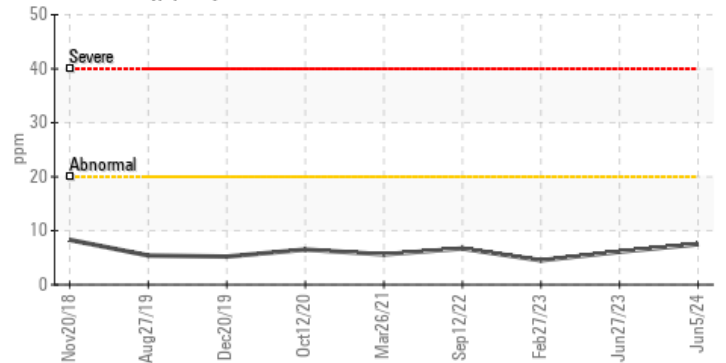
Chromium (ppm)



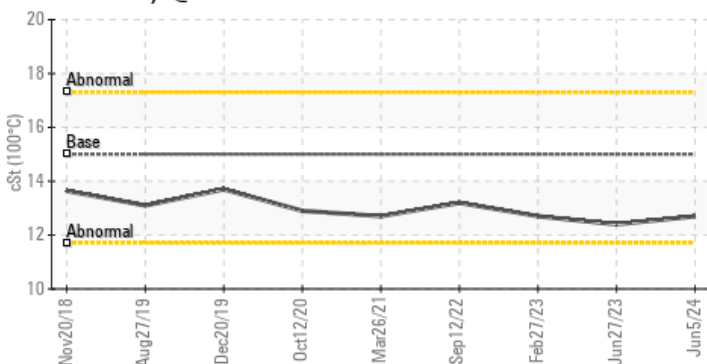
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

