



CONSTRUCTION EQUIPMENT

A1221 VOLVO EC220D 210876 - DIESEL ENGINE



Sample No: VCP444363
Oil Type: MOBIL 15W40
Job No: A12221



SAMPLE INFORMATION

Sample Number	VCP444363	VCP430666	VCP416832	VCP393916
Sample Date	20 Mar 2024	16 Oct 2023	19 Jun 2023	15 Mar 2023
Machine Hours	13980	13460	12979	12480
Oil Hours	500	500	0	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

WASTE MANAGEMENT - TELFORD
 400 PROGRESS DR
 TELFORD, PA
 US 18969-1191
 Contact: EDWARD ROGENER
 erogener@wm.com
 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	12.9	13.1	13.5	13.5
Base Number (BN)	mg KOH/g	6.7	10.2	7.1	7.8
Oxidation (PA)	%	47	81	45	49

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.2	0.2	0.2
Nitration (PA)	%	59	55	60	59
Sulfation (PA)	%	48	61	50	50
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	12	17	11	10
Sodium	ppm	2	3	0	1
Potassium	ppm	2	0	2	2

WEAR METALS

Iron	ppm	11	6	4	5
Copper	ppm	<1	0	<1	<1
Lead	ppm	0	0	<1	0
Tin	ppm	0	0	<1	0
Aluminum	ppm	3	2	1	2
Chromium	ppm	<1	0	0	<1
Molybdenum	ppm	12	37	16	31
Nickel	ppm	0	0	<1	0
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	0	<1
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	2153	1704	2180	1836
Magnesium	ppm	169	508	170	420
Zinc	ppm	1119	1179	1093	1165
Phosphorus	ppm	761	841	925	990
Barium	ppm	0	0	0	2
Boron	ppm	7	33	3	6

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: WASTEL
Unique No: 10949741
Signed: Wes Davis
Report Date: 28 Mar 2024

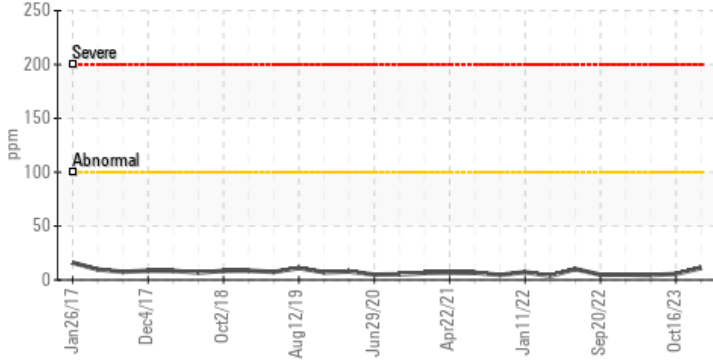


CONSTRUCTION EQUIPMENT

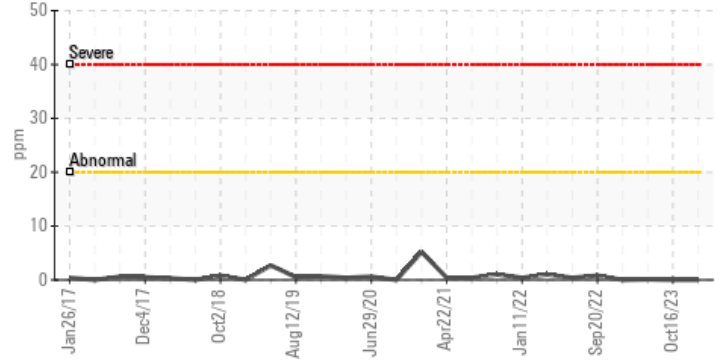


GRAPHS

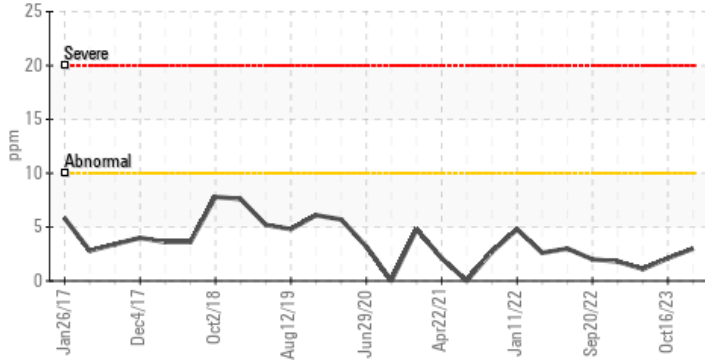
Iron (ppm)



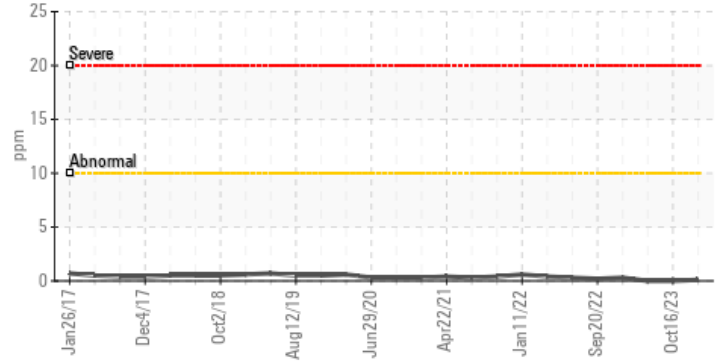
Lead (ppm)



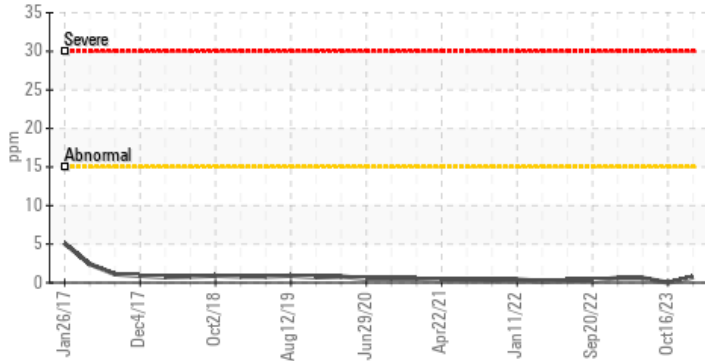
Aluminum (ppm)



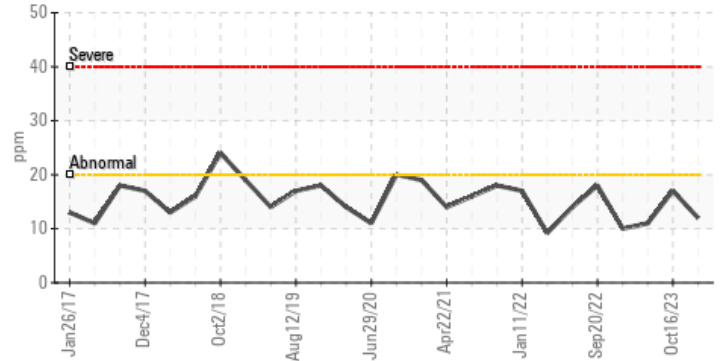
Chromium (ppm)



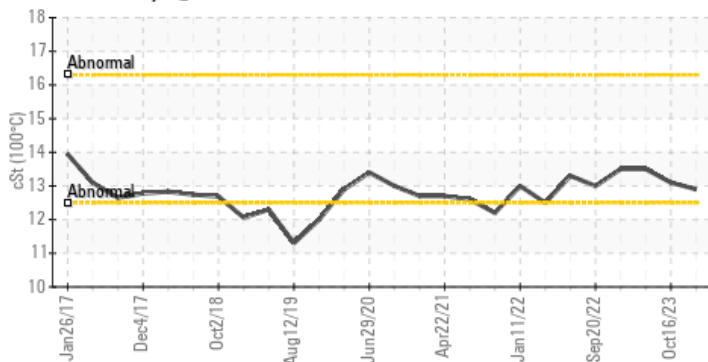
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

