



CONSTRUCTION EQUIPMENT

A12443 ALPHA VOLVO EC160E 314175 - DIESEL ENGINE



Sample No: VCP412817
Oil Type: MOBIL 15W40
Job No: A12443 ALPHA



SAMPLE INFORMATION

Sample Number	VCP412817	VCP428747	VCP430930	VCP416349
Sample Date	09 Apr 2024	12 Jan 2024	31 Oct 2023	16 Aug 2023
Machine Hours	7080	6540	5950	5360
Oil Hours	500	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	NORMAL

HOFFMAN EQUIPMENT - LIONVILLE
 120 GORDON DRIVE
 LIONVILLE, PA
 US 19341
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OIL CONDITION

Visc @ 100°C	cSt	11.6	11.8	11.5	12.0
Base Number (BN)	mg KOH/g	5.3	5.0	6.1	5.8
Oxidation (PA)	%	50	50	54	43

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	0.2	0.2
Nitration (PA)	%	63	60	64	60
Sulfation (PA)	%	53	53	51	47
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	4	4	4
Sodium	ppm	2	1	1	0
Potassium	ppm	0	2	2	2



WEAR METALS

Iron	ppm	14	13	18	11
Copper	ppm	1	1	2	1
Lead	ppm	0	<1	0	<1
Tin	ppm	<1	<1	0	<1
Aluminum	ppm	6	8	20	8
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	7	10	28	12
Nickel	ppm	0	0	0	2
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	<1	0	2
Manganese	ppm	<1	<1	0	<1
Vanadium	ppm	<1	0	<1	<1



ADDITIVES

Calcium	ppm	2136	2011	1723	2114
Magnesium	ppm	76	144	348	106
Zinc	ppm	921	1062	1074	1050
Phosphorus	ppm	790	878	897	845
Barium	ppm	0	<1	7	0
Boron	ppm	2	3	4	3

Depot: VOLVO8879
Unique No: 10990953
Signed: Wes Davis
Report Date: 22 Apr 2024

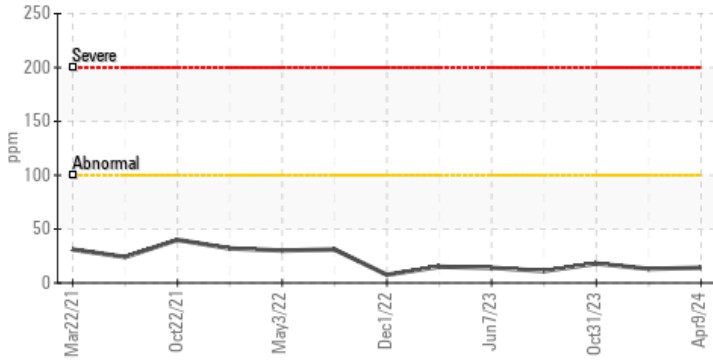


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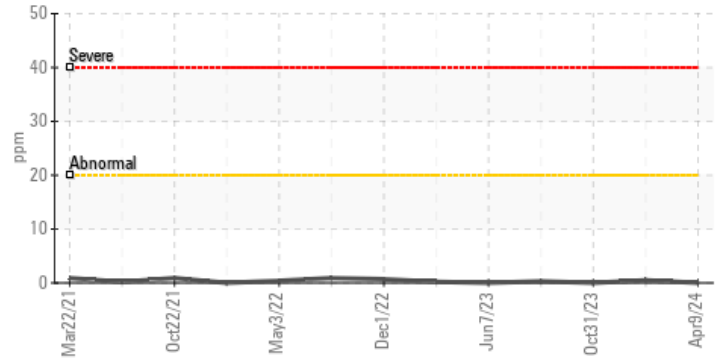


GRAPHS

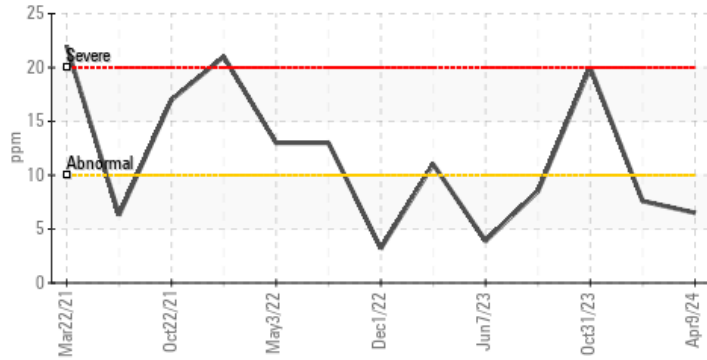
Iron (ppm)



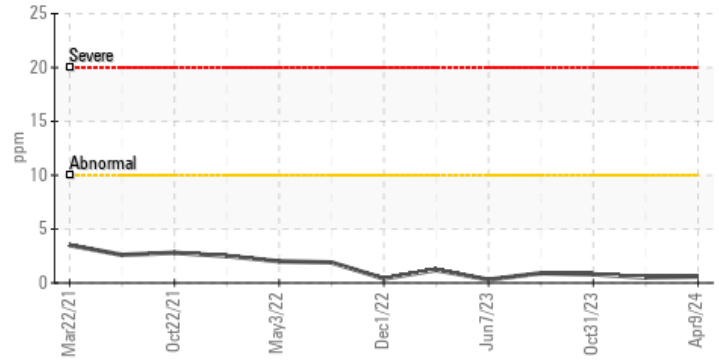
Lead (ppm)



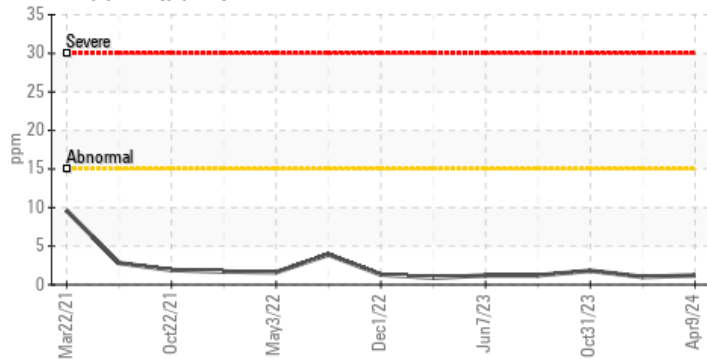
Aluminum (ppm)



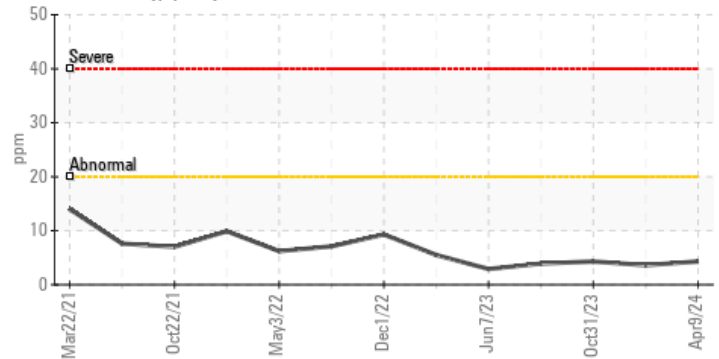
Chromium (ppm)



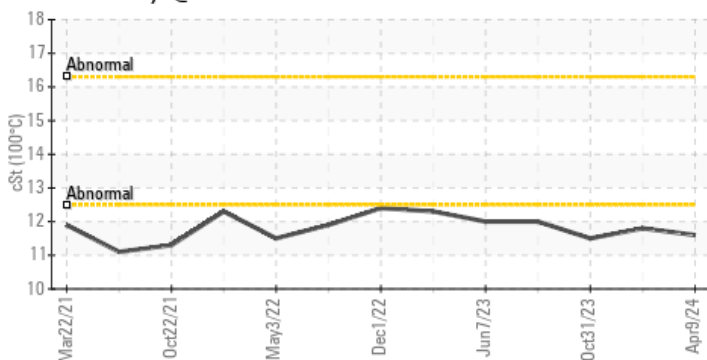
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

