



CONSTRUCTION EQUIPMENT

SWO-064724 VOLVO A60H 340044 - DIESEL ENGINE



Sample No: VCP411751
Oil Type: DIESEL ENGINE OIL SAE 40
Job No: SWO-064724



SAMPLE INFORMATION

Sample Number	VCP411751	VCP410186	VCP405241	VCP369303
Sample Date	04 Aug 2023	11 May 2023	10 Apr 2023	08 Mar 2023
Machine Hours	8791	8303	8110	7898
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Not Changd	Not Changd
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

SAIIA CONSTRUCTION LLC

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 BIRMINGHAM, AL
 US 35207

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OIL CONDITION

Visc @ 100°C	cSt	12.6	12.6	12.5	12.7
Base Number (BN)	mg KOH/g	10.4	10.2	9.1	10.6
Oxidation (PA)	%	79	79	73	75



CONTAMINATION

Soot %	%	1	0.7	0.4	0.2
Nitration (PA)	%	63	63	51	46
Sulfation (PA)	%	64	63	56	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	▲ 87	24	3	10
Sodium	ppm	0	3	2	0
Potassium	ppm	10	<1	0	3



WEAR METALS

Iron	ppm	58	26	27	10
Copper	ppm	3	2	1	<1
Lead	ppm	5	1	3	<1
Tin	ppm	2	1	<1	<1
Aluminum	ppm	▲ 47	17	1	6
Chromium	ppm	1	<1	2	<1
Molybdenum	ppm	39	42	61	42
Nickel	ppm	2	<1	0	<1
Titanium	ppm	2	<1	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	2	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1644	1718	1164	1688
Magnesium	ppm	465	514	869	480
Zinc	ppm	1029	1074	1144	1107
Phosphorus	ppm	874	875	955	939
Barium	ppm	2	0	0	2
Boron	ppm	33	44	13	62

Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: SAIBIR
Unique No: 10607018
Signed: Sean Felton
Report Date: 18 Aug 2023

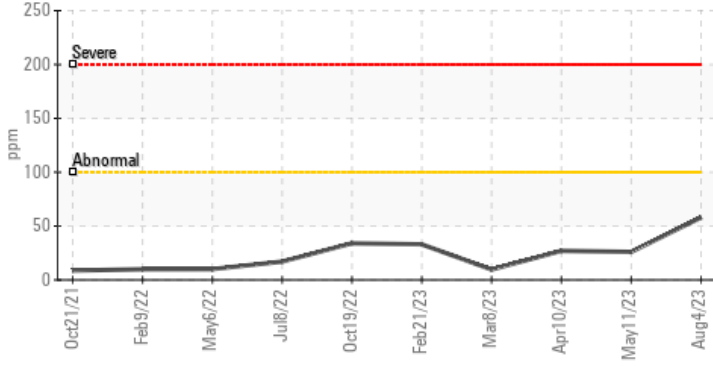


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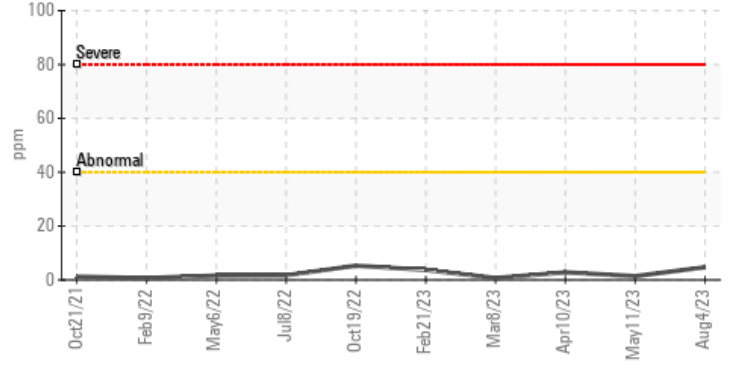


GRAPHS

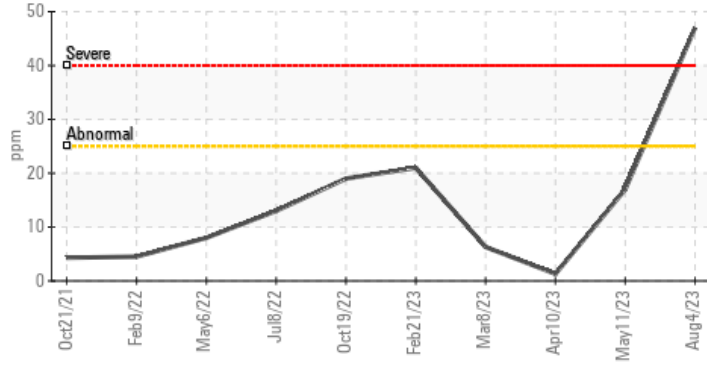
Iron (ppm)



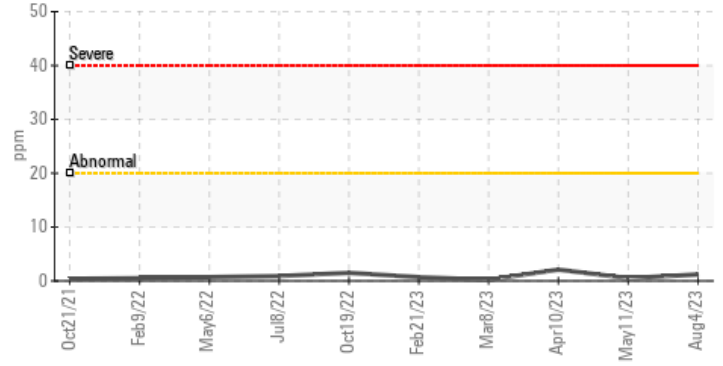
Lead (ppm)



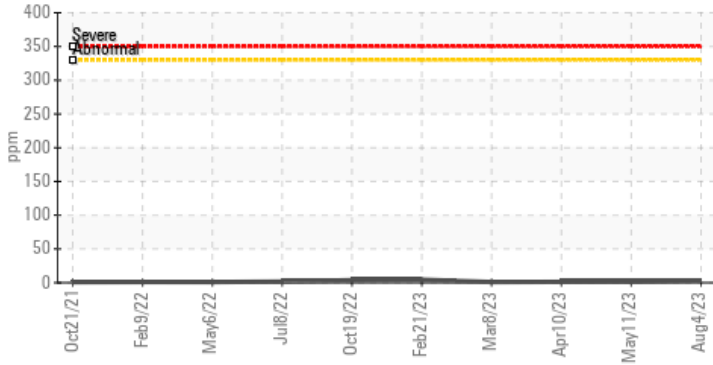
Aluminum (ppm)



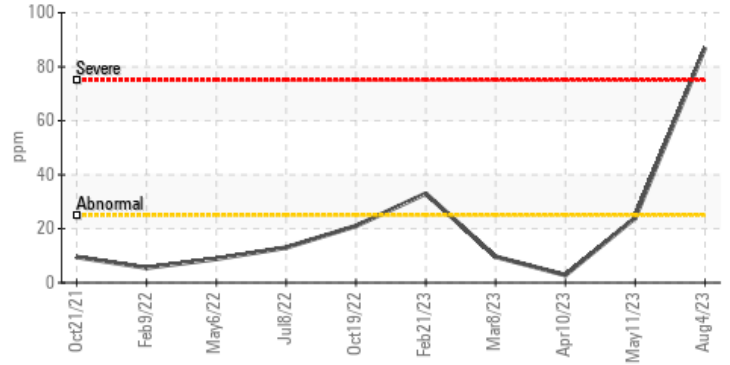
Chromium (ppm)



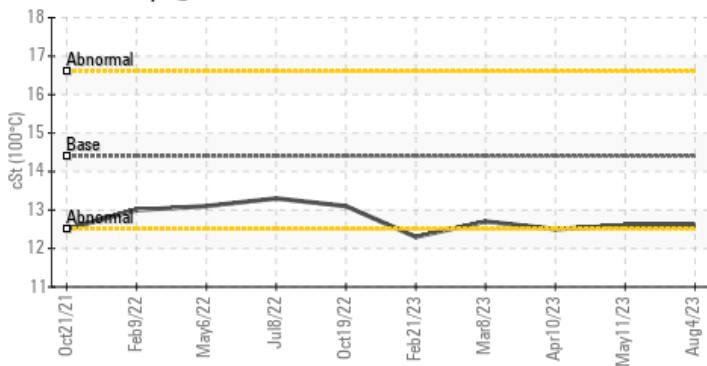
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

