



# CONSTRUCTION EQUIPMENT

SWO-071570 VOLVO A40G 341023 - DIESEL ENGINE



**Sample No:** VCP453641  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWO-071570



## SAMPLE INFORMATION

Sample Number	<b>VCP453641</b>	VCP447532	VCP435426	VCP408953
Sample Date	<b>01 May 2024</b>	27 Dec 2023	20 Sep 2023	13 Jun 2023
Machine Hours	<b>9466</b>	8960	8472	7952
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	ATTENTION	ATTENTION

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## OIL CONDITION

Visc @ 100°C	cSt	<b>12.5</b>	12.5	12.2	12.3
Base Number (BN)	mg KOH/g	<b>9.8</b>	9.4	9.3	9.0
Oxidation (PA)	%	<b>78</b>	73	78	83

## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.2	0.2	0.2
Nitration (PA)	%	<b>58</b>	58	55	60
Sulfation (PA)	%	<b>59</b>	57	58	60
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>7</b>	8	10	7
Sodium	ppm	<b>3</b>	2	2	13
Potassium	ppm	<b>0</b>	0	2	0

## WEAR METALS

Iron	ppm	<b>7</b>	9	12	10
Copper	ppm	<b>&lt;1</b>	1	<1	0
Lead	ppm	<b>0</b>	1	1	1
Tin	ppm	<b>0</b>	<1	<1	<1
Aluminum	ppm	<b>2</b>	4	4	3
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>43</b>	43	43	43
Nickel	ppm	<b>0</b>	<1	1	0
Titanium	ppm	<b>0</b>	<1	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0

## ADDITIVES

Calcium	ppm	<b>1762</b>	1482	1755	1544
Magnesium	ppm	<b>494</b>	607	489	513
Zinc	ppm	<b>1001</b>	1148	1144	892
Phosphorus	ppm	<b>914</b>	983	979	756
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>76</b>	35	43	51

## 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:** SAIBIR  
**Unique No:** 11019670  
**Signed:** Don Baldrige  
**Report Date:** 11 May 2024

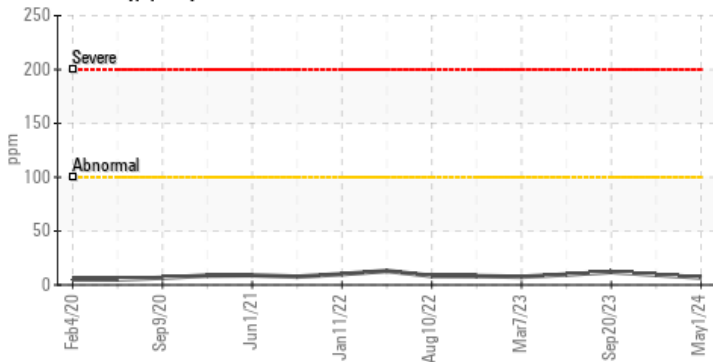


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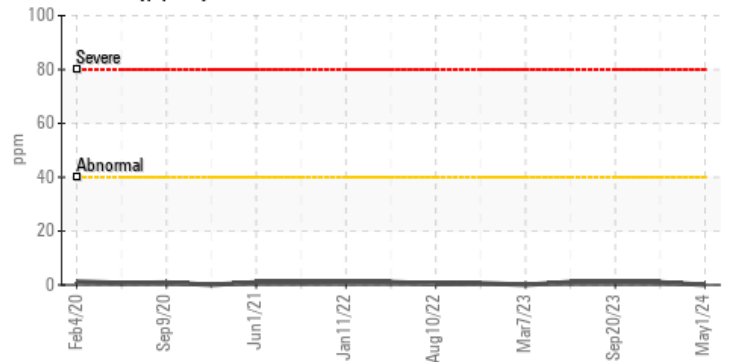


## GRAPHS

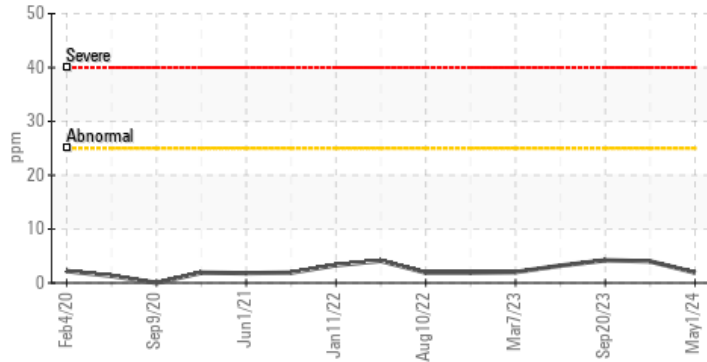
### Iron (ppm)



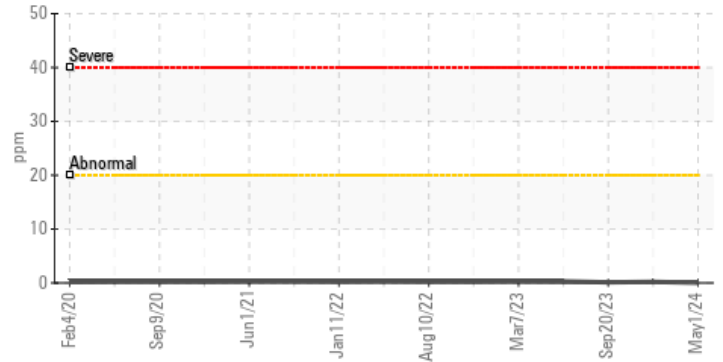
### Lead (ppm)



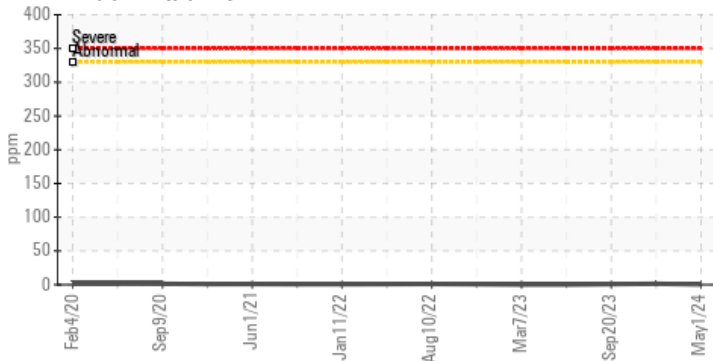
### Aluminum (ppm)



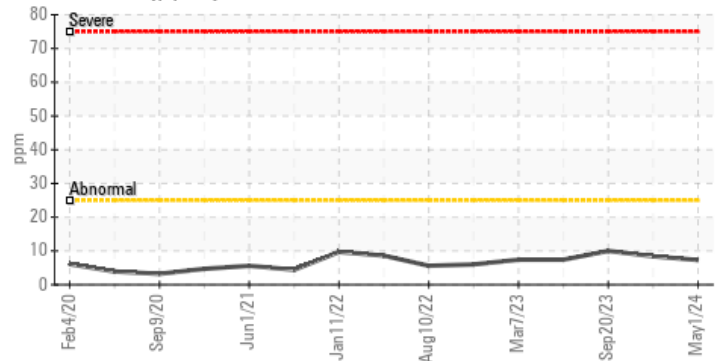
### Chromium (ppm)



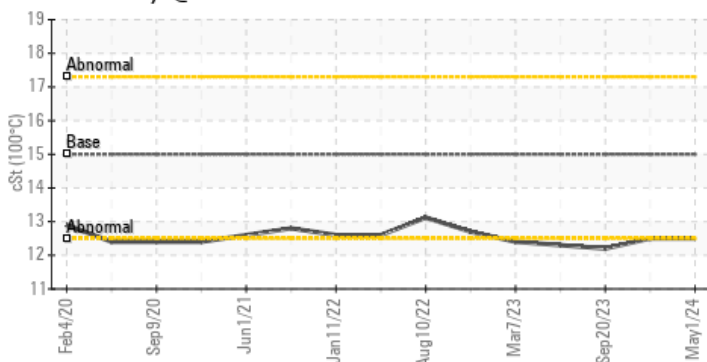
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

