



# CONSTRUCTION EQUIPMENT

## 3975HR VOLVO A25E 73047 - DIESEL ENGINE



**Sample No:** VCP356610  
**Oil Type:** DIESEL ENGINE OIL SAE 15W40  
**Job No:** 3975HR



### SAMPLE INFORMATION

Sample Number	<b>VCP356610</b>	VCP158662	VCP161158	VCP160182
Sample Date	<b>22 Jun 2023</b>	16 Sep 2014	11 Jun 2014	05 May 2014
Machine Hours	<b>16040</b>	9996	9507	9342
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Changed	Changed	Changed
Sample Status	<b>SEVERE</b>	NORMAL	NORMAL	NORMAL

PO BOX 1957  
HARRISBURG, PA  
US 17105  
Contact: BRANDON MIDDAUGH  
bmiddaugh@hwyequip.com  
T:  
F: (717)564-3568

### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 10.4</b>	■ 13.64	■ 13.47	■ 13.37
Base Number (BN)	mg KOH/g	■ <b>6.2</b>	---	---	---
Oxidation (PA)	%	<b>55</b>	■ 36	■ 44	■ 48

### CONTAMINATION

Water	%	---	■ 0.12	---	---
Soot %	%	■ <b>0.6</b>	■ 0.4	■ 0.1	■ 0.5
Nitration (PA)	%	<b>73</b>	■ 42	■ 50	■ 50
Sulfation (PA)	%	<b>52</b>	■ 42	■ 44	■ 44
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	■ <b>8.6</b>	<1.0	<1.0	<1.0
Silicon	ppm	■ <b>4</b>	■ 2	■ 2	■ 1
Sodium	ppm	■ <b>&lt;1</b>	■ 4	■ 4	■ 4
Potassium	ppm	■ <b>1</b>	■ 1	■ 1	■ 1

### WEAR METALS

Iron	ppm	■ <b>17</b>	■ 5	■ 6	■ 10
Copper	ppm	■ <b>4</b>	■ <1	■ <1	■ 2
Lead	ppm	■ <b>&lt;1</b>	■ <1	■ 0	■ 2
Tin	ppm	■ <b>&lt;1</b>	■ <1	■ 2	■ <1
Aluminum	ppm	■ <b>&lt;1</b>	■ 1	■ 2	■ 1
Chromium	ppm	■ <b>&lt;1</b>	■ <1	■ <1	■ <1
Molybdenum	ppm	■ <b>76</b>	■ 44	■ 46	■ 44
Nickel	ppm	■ <b>0</b>	■ <1	■ <1	■ <1
Titanium	ppm	■ <b>0</b>	2	1	<1
Silver	ppm	■ <b>0</b>	0	0	0
Manganese	ppm	■ <b>&lt;1</b>	■ <1	■ 2	■ 2
Vanadium	ppm	■ <b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	■ <b>1769</b>	1331	■ 1319	■ 1294
Magnesium	ppm	■ <b>177</b>	805	■ 795	■ 795
Zinc	ppm	■ <b>1092</b>	■ 1028	■ 1021	■ 1047
Phosphorus	ppm	■ <b>938</b>	■ 940	■ 941	■ 965
Barium	ppm	■ <b>0</b>	■ 0	■ 0	■ 0
Boron	ppm	■ <b>43</b>	■ 44	■ 41	■ 32

### Diagnosis

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

**Depot:** VOLVO0025  
**Unique No:** 10538765  
**Signed:** Wes Davis  
**Report Date:** 05 Jul 2023

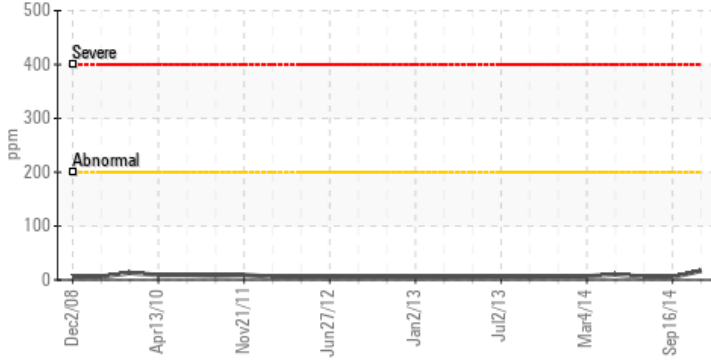


# CONSTRUCTION EQUIPMENT

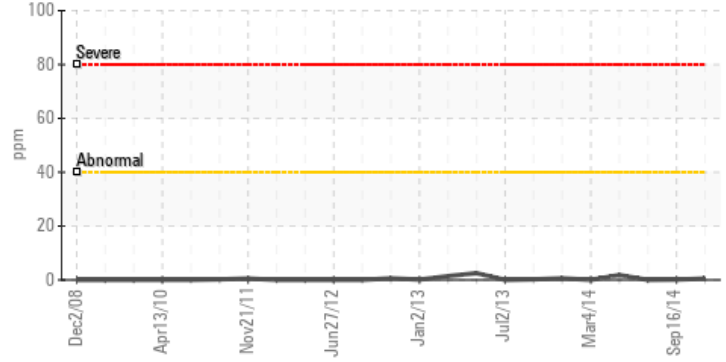


## GRAPHS

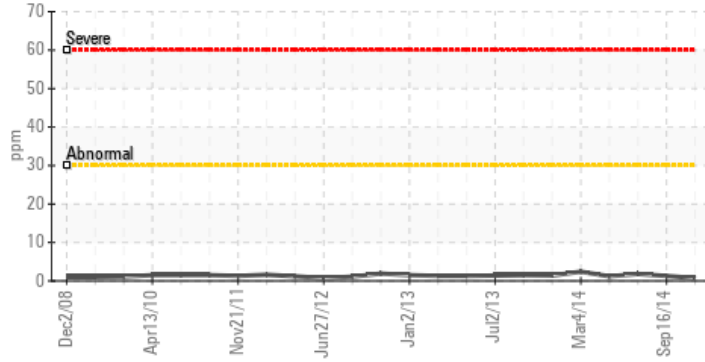
### Iron (ppm)



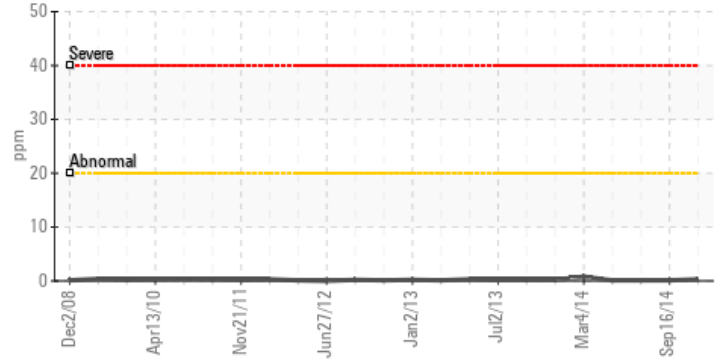
### Lead (ppm)



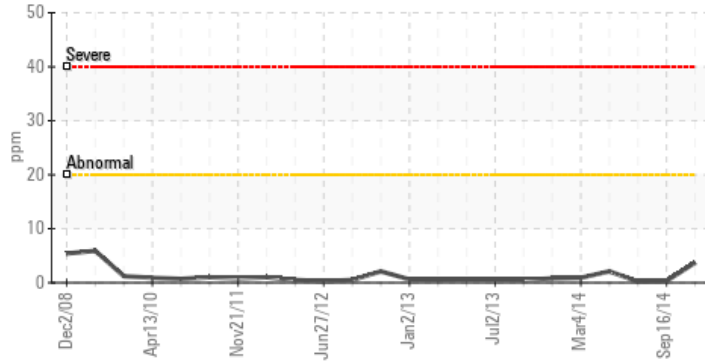
### Aluminum (ppm)



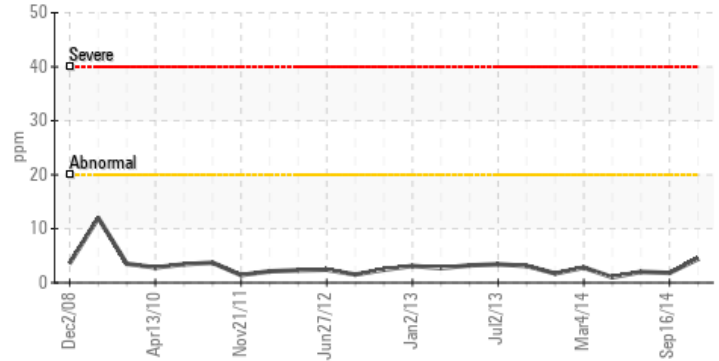
### Chromium (ppm)



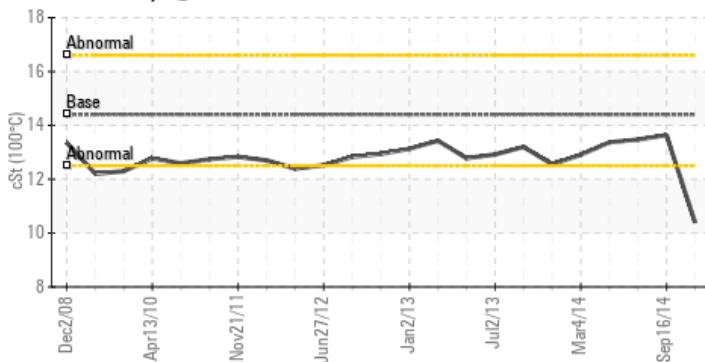
### Copper (ppm)



### Silicon (ppm)



### ▲ Viscosity @ 100°C



### Base Number

