



# CONSTRUCTION EQUIPMENT

## 5520DR KINSLEY CONST VOLVO A40E 13563 - HYDRAULIC SYSTEM



**Sample No:** VCP431945  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** 5520DR KINSLEY CONST



### SAMPLE INFORMATION

Sample Number	<b>VCP431945</b>	VCP145382	---	---
Sample Date	<b>03 May 2024</b>	21 Jun 2013	---	---
Machine Hours	<b>13563</b>	2149	---	---
Oil Hours	<b>2000</b>	0	---	---
Oil Changed	<b>Changed</b>	Not Changd	---	---
Sample Status	<b>ATTENTION</b>	NORMAL	---	---

**HIGHWAY EQUIPMENT & SUPPLY CO**  
 PO BOX 127  
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 US 18222  
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 T: (570)788-1127  
 F: (570)708-2933



### OIL CONDITION

Visc @ 40°C	cSt	<b>43.5</b>	89.83	---	---
Acid Number (AN)	mg KOH/g	<b>0.80</b>	0.503	---	---



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	---	---
Particles >4µm		<b>43581</b>	221	---	---
Particles >6µm		<b>9199</b>	120	---	---
Particles >14µm		<b>112</b>	20	---	---
ISO 4406:1999 (c)		<b>23/20/14</b>	15/14/11	---	---
Silicon	ppm	<b>14</b>	10	---	---
Sodium	ppm	<b>5</b>	<1	---	---
Potassium	ppm	<b>0</b>	0	---	---

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.



### WEAR METALS

Iron	ppm	<b>4</b>	1	---	---
Copper	ppm	<b>1</b>	3	---	---
Lead	ppm	<b>0</b>	<1	---	---
Tin	ppm	<b>&lt;1</b>	0	---	---
Aluminum	ppm	<b>3</b>	<1	---	---
Chromium	ppm	<b>&lt;1</b>	0	---	---
Molybdenum	ppm	<b>1</b>	0	---	---
Nickel	ppm	<b>0</b>	0	---	---
Titanium	ppm	<b>&lt;1</b>	0	---	---
Silver	ppm	<b>0</b>	0	---	---
Manganese	ppm	<b>&lt;1</b>	0	---	---
Vanadium	ppm	<b>0</b>	0	---	---



### ADDITIVES

Calcium	ppm	<b>3262</b>	49	---	---
Magnesium	ppm	<b>38</b>	0	---	---
Zinc	ppm	<b>1296</b>	423	---	---
Phosphorus	ppm	<b>1091</b>	338	---	---
Barium	ppm	<b>&lt;1</b>	0	---	---
Boron	ppm	<b>110</b>	<1	---	---

**Depot:** VOLVO0022  
**Unique No:** 11019878  
**Signed:** Don Baldrige  
**Report Date:** 14 May 2024

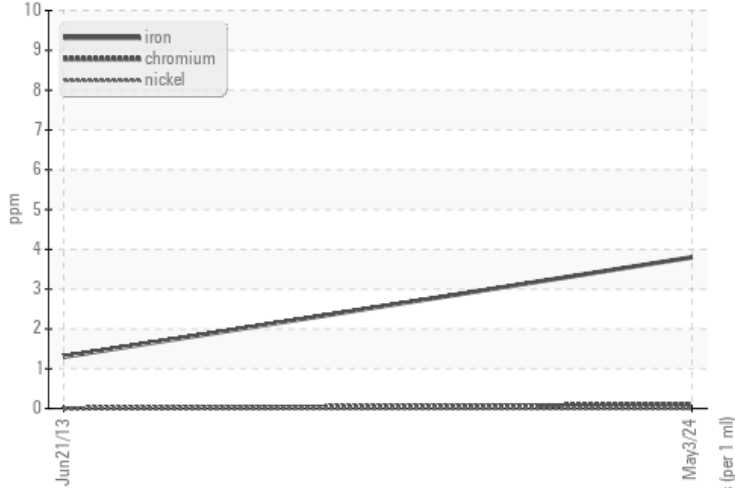


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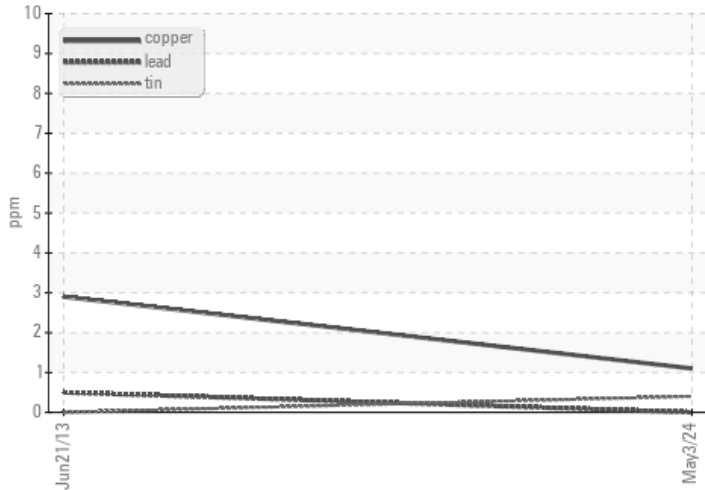


## GRAPHS

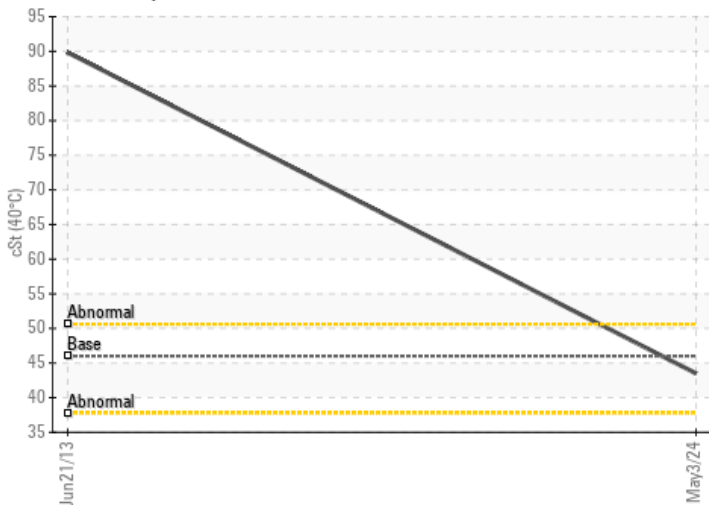
### Ferrous Alloys



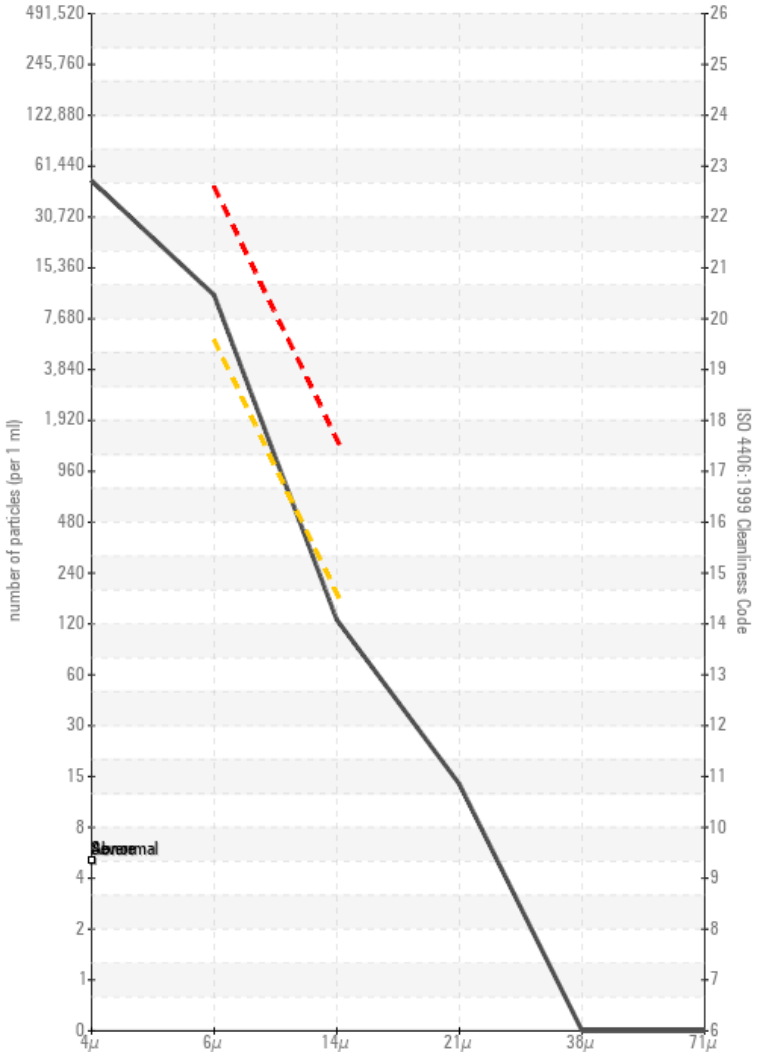
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

