



# CONSTRUCTION EQUIPMENT

## VOLVO ECR145EL 314057 - HYDRAULIC SYSTEM



**Sample No:** VCP429671  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP429671</b>	VCP392705	VCP367196	VCP375972
Sample Date	<b>13 Dec 2023</b>	27 Jun 2023	12 Sep 2022	06 Jun 2022
Machine Hours	<b>4615</b>	4163	2982	2493
Oil Hours	<b>0</b>	4163	500	1500
Oil Changed	<b>Not Changd</b>	Changed	Not Changd	Not Changd
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

### RIPA AND ASSOCIATES

10149 FISHER AVENUE  
 TAMPA, FL  
 US 33619  
 Contact: PM Services  
 PMServices@ripaconstruction.com  
 T:  
 F:



### OIL CONDITION

Visc @ 40°C	cSt	<b>42.1</b>	44.6	42.2	42.7
Acid Number (AN)	mg KOH/g	<b>0.52</b>	0.44	0.46	0.43



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		<b>5162</b>	3609	3228	7685
Particles >6µm		<b>1436</b>	541	504	1887
Particles >14µm		<b>92</b>	23	15	173
ISO 4406:1999 (c)		<b>20/18/14</b>	19/16/12	19/16/11	20/18/15
Silicon	ppm	<b>2</b>	2	2	2
Sodium	ppm	<b>0</b>	2	<1	0
Potassium	ppm	<b>&lt;1</b>	3	0	<1

### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



### WEAR METALS

Iron	ppm	<b>4</b>	4	2	2
Copper	ppm	<b>21</b>	28	30	29
Lead	ppm	<b>0</b>	<1	<1	<1
Tin	ppm	<b>0</b>	0	<1	<1
Aluminum	ppm	<b>3</b>	2	<1	<1
Chromium	ppm	<b>&lt;1</b>	0	0	0
Molybdenum	ppm	<b>0</b>	0	0	0
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	<1	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	0	0	0
Vanadium	ppm	<b>0</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>123</b>	44	43	47
Magnesium	ppm	<b>3</b>	2	0	<1
Zinc	ppm	<b>536</b>	410	386	424
Phosphorus	ppm	<b>429</b>	352	343	342
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>0</b>	0	0	0

**Depot:** RIPTAM  
**Unique No:** 10848239  
**Signed:** Wes Davis  
**Report Date:** 29 Jan 2024

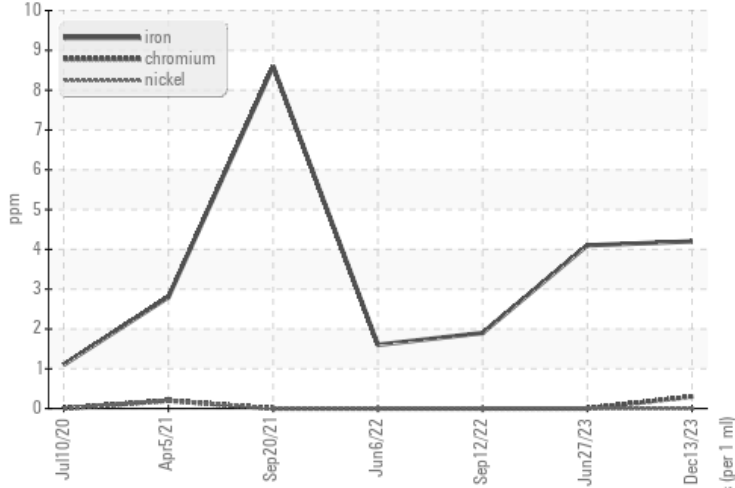


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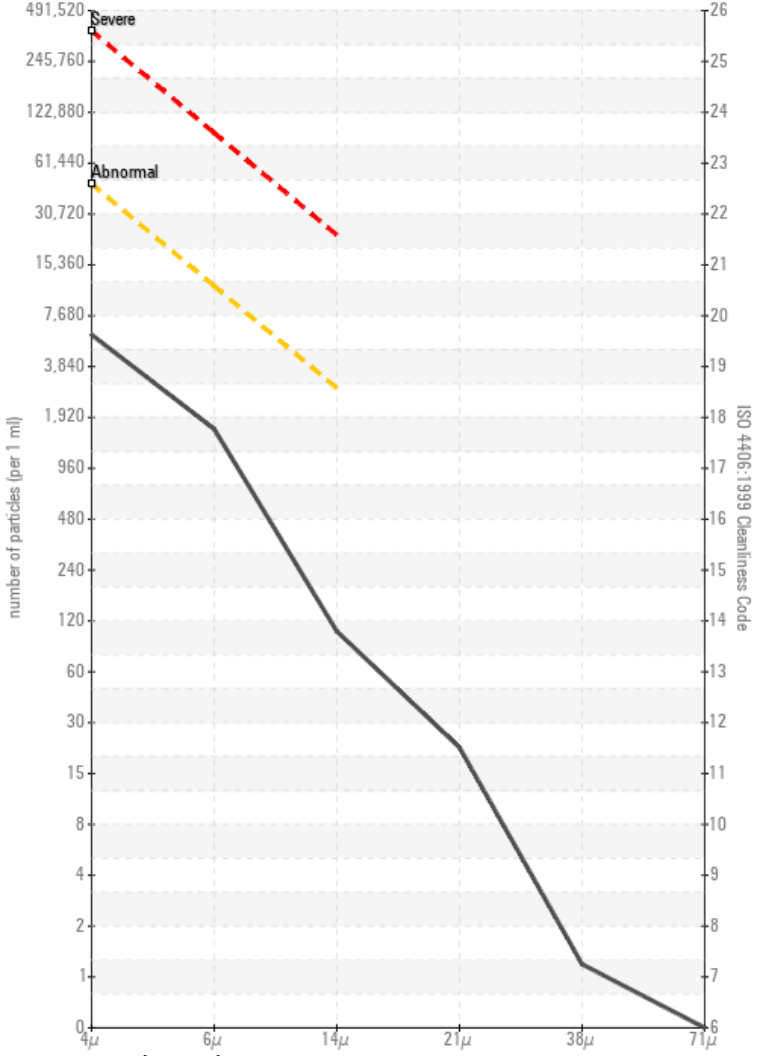


## VOLVO GRAPHS

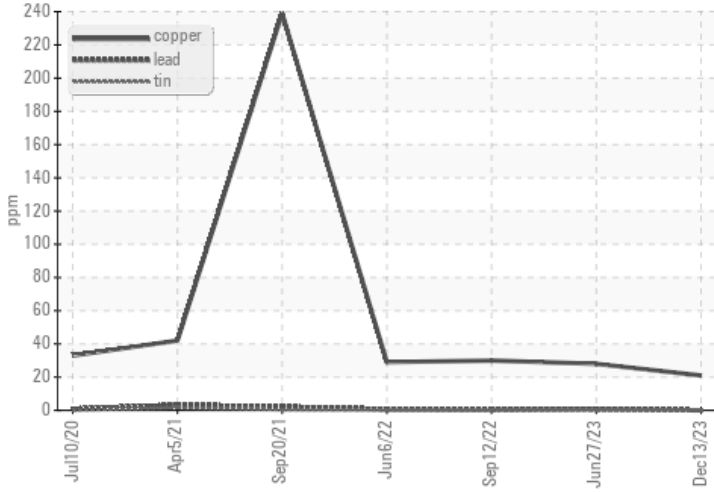
### Ferrous Alloys



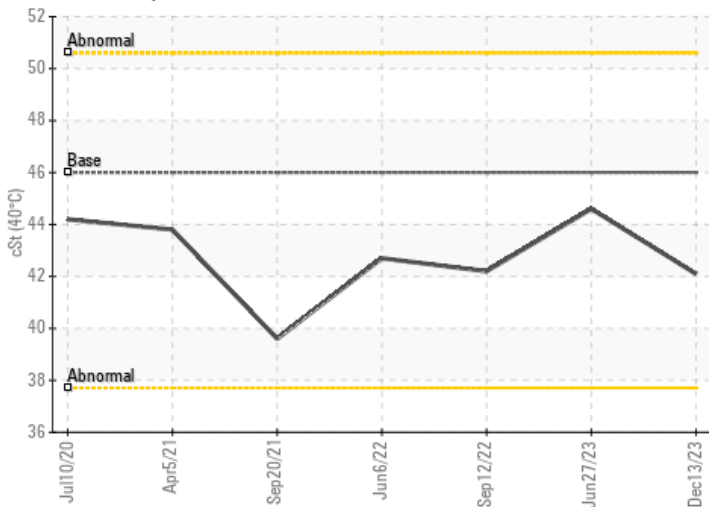
### Particle Count



### Non-ferrous Metals



### Viscosity @ 40°C



### Acid Number

