



CONSTRUCTION EQUIPMENT

SW1028515 VOLVO EC220EL 314053 - HYDRAULIC SYSTEM



Sample No: VCP443658
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: SW1028515



SAMPLE INFORMATION

Sample Number	VCP443658	VCP319101	VCP313992	---
Sample Date	06 Feb 2024	20 Sep 2021	07 Apr 2021	---
Machine Hours	0	2359	1869	---
Oil Hours	0	2359	0	---
Oil Changed	N/A	Changed	Not Changd	---
Sample Status	ATTENTION	NORMAL	ABNORMAL	---

ARNOLD MACHINERY COMPANY
 2975 WEST 2100 SOUTH
 SALT LAKE CITY, UT
 US 84119
 Contact: S. KARBACH
 skarbach@arnoldmachinery.com
 T: (801)972-4000
 F: (801)975-9434



OIL CONDITION

Visc @ 40°C	cSt	▲ 35.8	■ 42.7	■ 42.8	---
Acid Number (AN)	mg KOH/g	■ 0.34	■ 0.462	■ 0.444	---



CONTAMINATION

Water	%	NEG	NEG	NEG	---
Particles >4µm		18048	430	7202	---
Particles >6µm		■ 1870	■ 22	■ 2071	---
Particles >14µm		■ 72	■ 3	▲ 270	---
ISO 4406:1999 (c)		21/18/13	16/12/9	20/18/15	---
Silicon	ppm	■ 4	■ 2	■ 4	---
Sodium	ppm	■ 0	■ 0	■ <1	---
Potassium	ppm	■ <1	■ 0	■ 0	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.



WEAR METALS

Iron	ppm	■ 5	■ 3	■ 2	---
Copper	ppm	■ 20	■ 18	■ 14	---
Lead	ppm	■ <1	■ <1	■ <1	---
Tin	ppm	■ <1	0	<1	---
Aluminum	ppm	■ 2	■ <1	■ <1	---
Chromium	ppm	■ <1	■ <1	■ <1	---
Molybdenum	ppm	■ <1	■ 0	■ <1	---
Nickel	ppm	■ <1	■ 0	■ 0	---
Titanium	ppm	<1	0	0	---
Silver	ppm	0	<1	<1	---
Manganese	ppm	■ <1	■ <1	■ <1	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	■ 52	■ 101	■ 81	---
Magnesium	ppm	■ 2	■ <1	■ 1	---
Zinc	ppm	■ 400	■ 487	■ 465	---
Phosphorus	ppm	■ 349	■ 357	■ 335	---
Barium	ppm	■ 13	■ 0	■ 0	---
Boron	ppm	■ 0	■ <1	■ 0	---

Depot: VOLVO8770
Unique No: 10873454
Signed: Don Baldrige
Report Date: 13 Feb 2024

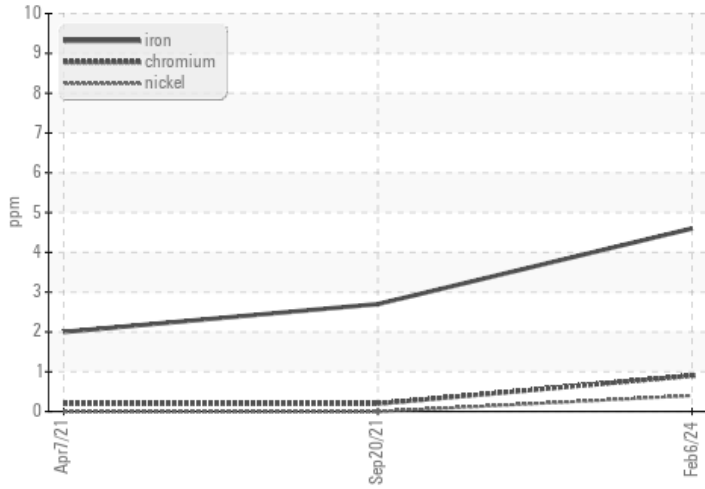


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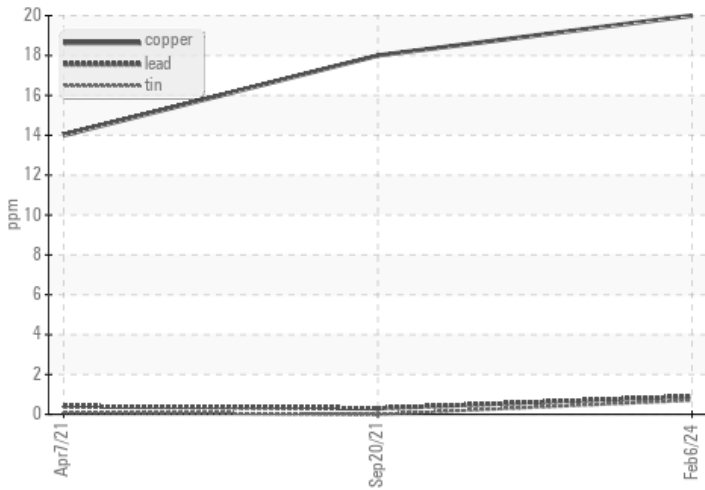


GRAPHS

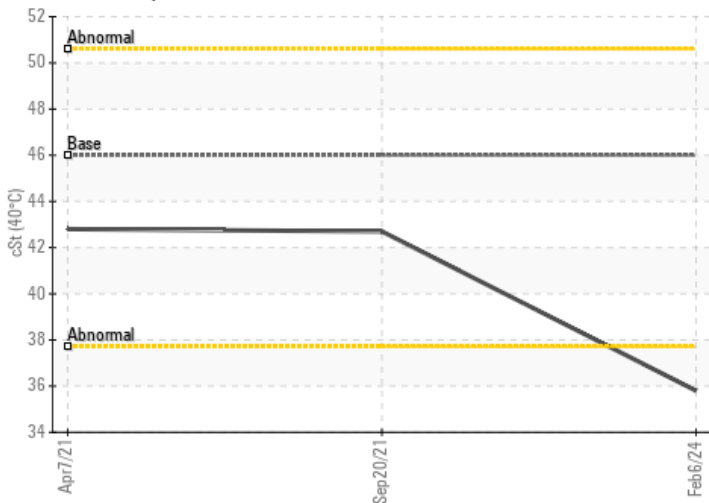
Ferrous Alloys



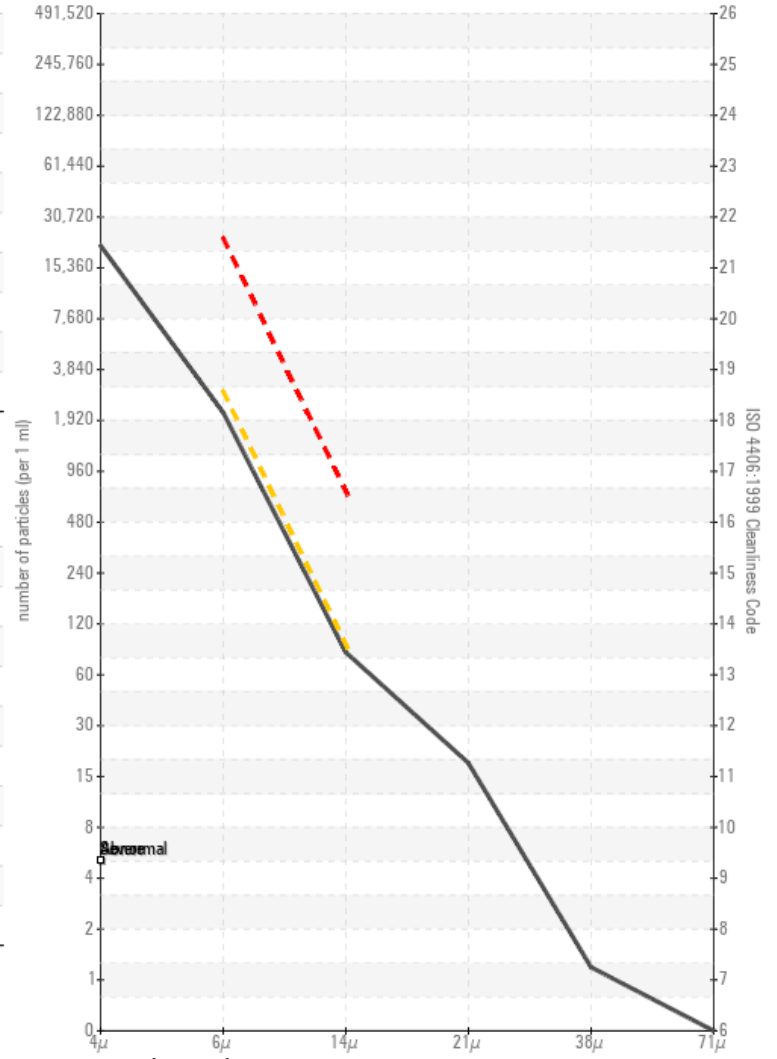
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

