



CONSTRUCTION EQUIPMENT

CATERPILLAR 966H A6D01734 - HYDRAULIC SYSTEM



Sample No: VCP442888
Oil Type: ESSO NUTO H ISO 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP442888	VCP396819	VCP366579	VCP338102
Sample Date	07 Feb 2024	07 Jun 2023	13 Feb 2023	30 Nov 2022
Machine Hours	15934	15734	15492	15249
Oil Hours	1954	1750	1500	1250
Oil Changed	Changed	Not Changd	Not Changd	Not Changd
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 40°C	cSt	44.5	45.7	45.6	45.7
Acid Number (AN)	mg KOH/g	0.62	0.48	0.53	0.48

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		---	716	1141	905
Particles >6µm		---	163	274	319
Particles >14µm		---	23	18	37
ISO 4406:1999 (c)		---	17/15/12	17/15/11	17/15/12
Silicon	ppm	1	2	3	2
Sodium	ppm	2	2	<1	1
Potassium	ppm	0	0	2	0

Diagnosis
 Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

WEAR METALS

Iron	ppm	2	4	4	4
Copper	ppm	3	4	3	4
Lead	ppm	0	0	0	0
Tin	ppm	0	0	0	0
Aluminum	ppm	<1	<1	0	<1
Chromium	ppm	0	0	0	<1
Molybdenum	ppm	6	10	11	11
Nickel	ppm	0	0	0	0
Titanium	ppm	0	<1	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	0
Vanadium	ppm	0	<1	0	0

ADDITIVES

Calcium	ppm	432	632	619	621
Magnesium	ppm	23	22	26	21
Zinc	ppm	634	549	528	530
Phosphorus	ppm	529	480	441	465
Barium	ppm	<1	0	0	0
Boron	ppm	4	5	5	6

Depot: MARDIC
Unique No: 10874646
Signed: Jonathan Hester
Report Date: 14 Feb 2024

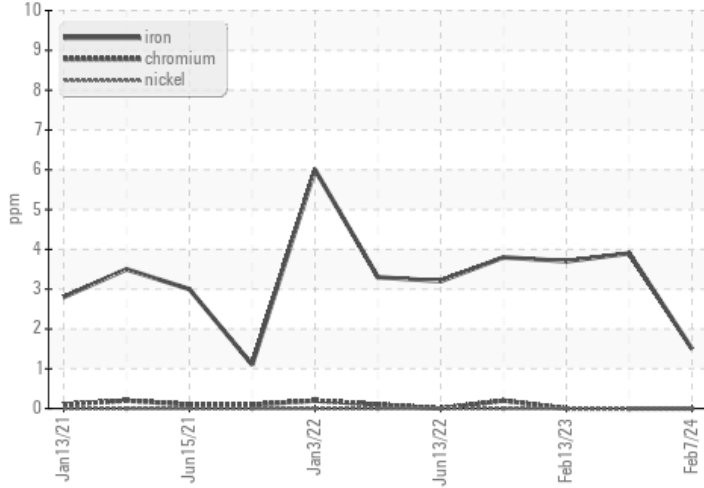


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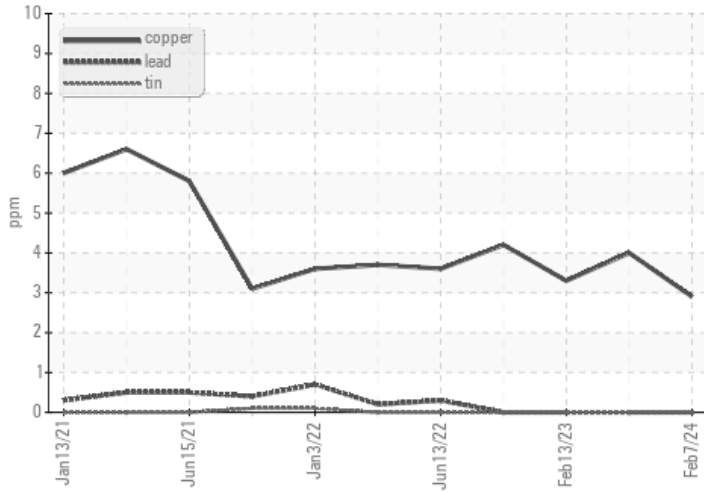


GRAPHS

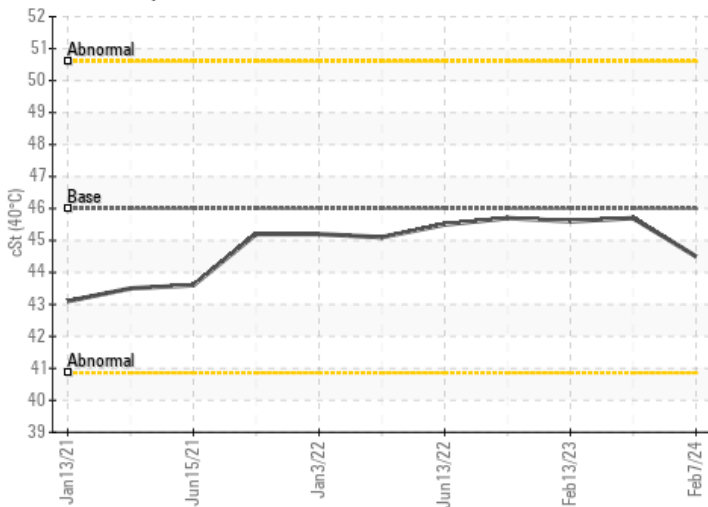
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Acid Number

