

LIEBHERR

CONSTRUCTION EQUIPMENT



092696 - Hydraulic System

Sample No: LH0274562

Oil Type: TOTAL FINA EQUIVIS XV 46

American Iron and Metal

75 Steel City Court

Hamilton, ON

CA L8H 3Y2

Contact: Heavy Equipment

hamiltonmobileassetmaintenance@aim-recycling.com

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F: (905)544-5671

Diagnosis

We advise that you check for visible metal particles in the oil. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Iron ppm levels are abnormal. Light concentration of visible metal present. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Additive levels indicate the addition of a different brand, or type of oil.



SAMPLE INFORMATION

Sample Number		LH0274562	LH0247221	LH0239420	LH0239179
Sample Date		05 Sep 2023	06 Apr 2023	22 Dec 2022	08 Sep 2022
Machine Hours		13109	12387	11804	11186
Oil Hours		0	0	0	0
Oil Changed		Not Changd	Not Changd	Not Changd	Not Changd
Sample Status		ABNORMAL	NORMAL	NORMAL	ATTENTION



OIL CONDITION

Visc @ 40°C	cSt	● 40.7	● 40.8	● 41.0	● 41.2
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CONTAMINATION

Particles >4µm		● 3135	● 513	● 3381	● 25143
Particles >6µm		● 653	● 155	● 793	● 6985
Particles >14µm		● 34	● 8	● 25	● 432
ISO 4406:1999 (c)		19/17/12	16/14/10	19/17/12	22/20/16
Silicon	ppm	● 1	● <1	● 1	● 1
Sodium	ppm	● 5	● 6	● 5	● 5
Potassium	ppm	● <1	● <1	● <1	● 0



WEAR METALS

PQ		● 0	---	---	---
Iron	ppm	● 60	● 53	● 48	● 42
Copper	ppm	● 5	● 5	● 4	● 4
Lead	ppm	● <1	● <1	● <1	● <1
Tin	ppm	● 0	● <1	● 0	● 0
Aluminum	ppm	● <1	● <1	● <1	● <1
Chromium	ppm	● 2	● 2	● 2	● 2
Molybdenum	ppm	● <1	● <1	● <1	● <1
Nickel	ppm	● 0	● <1	● <1	● <1
Titanium	ppm	0	0	0	0
Silver	ppm	0	<1	0	0
Manganese	ppm	● 1	● 1	● <1	● <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	165	172	173	176
Magnesium	ppm	● 6	● 4	● 4	● 4
Zinc	ppm	● 617	● 648	● 614	● 625
Phosphorus	ppm	● 528	● 564	● 539	● 547
Barium	ppm	● 0	● 0	● 0	● 0
Boron	ppm	● 2	● 2	● 1	● 1

Depot: AMEHAM
 Unique No: 5633768
 Signed: Kevin Marson
 Report Date: 08 Sep 2023

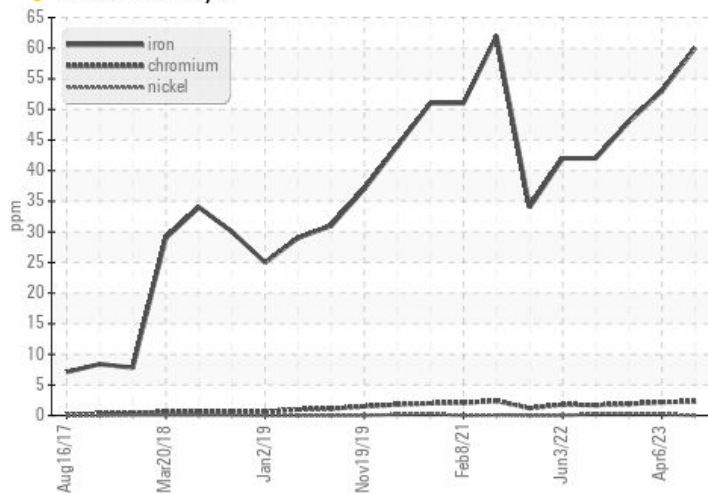
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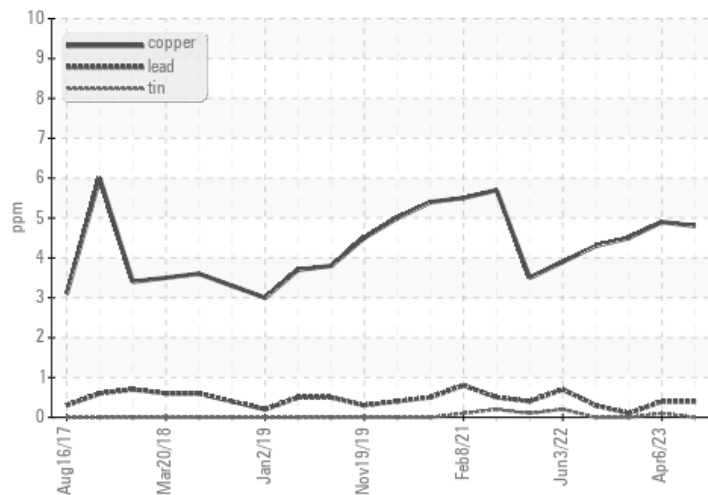


GRAPHS

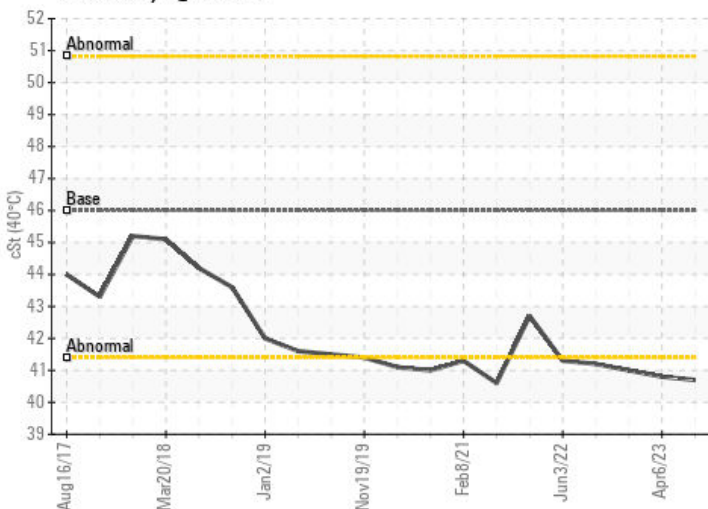
● Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Filter (Magn: 100 x)

