

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR HT0123 - Hydraulic System

Sample No: LH0284092

Oil Type: PETRO CANADA HYDREX MV 46



Sample Information

Sample Number	LH0284092	LH0284104	LH0260564	LH0260625
Sample Date	21 Jun 2024	03 Jun 2024	12 Mar 2024	05 Jan 2024
Machine Hours	28870	28608	28332	28055
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Radius Recycling Canada Ltd.

12195 Musqueam Dr.

Surrey, BC

CA V3V 3T2

Contact: Chris Trinkunas

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Oil Condition

Visc @ 40°C	cSt	60.1	60.5	83.5	82.7



Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		9957	8375	4672	4021
Particles >6µm		707	1104	306	377
Particles >14µm		9	35	8	17
ISO 4406:1999 (c)		20/17/10	20/17/12	19/15/10	19/16/11
Silicon	ppm	4	3	6	8
Sodium	ppm	0	<1	<1	<1
Potassium	ppm	<1	0	<1	<1



Wear Metals

Iron	ppm	4	3	5	5
Copper	ppm	<1	<1	<1	<1
Lead	ppm	0	0	0	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	1	<1	1	2
Chromium	ppm	<1	0	0	<1
Molybdenum	ppm	<1	<1	1	2
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	0	0	0	0
Silver	ppm	<1	0	0	0
Manganese	ppm	0	0	0	0
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	1668	1640	3103	3182
Magnesium	ppm	16	17	32	32
Zinc	ppm	568	548	1057	1028
Phosphorus	ppm	738	725	860	884
Barium	ppm	0	0	0	0
Boron	ppm	3	2	5	4

Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. 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. Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within SAE 20 range, advise investigate. The condition of the oil is acceptable for the time in service.

Depot: AMISUR

Unique No: 5813229

Signed: Kevin Marson

Report Date: 15 Jul 2024

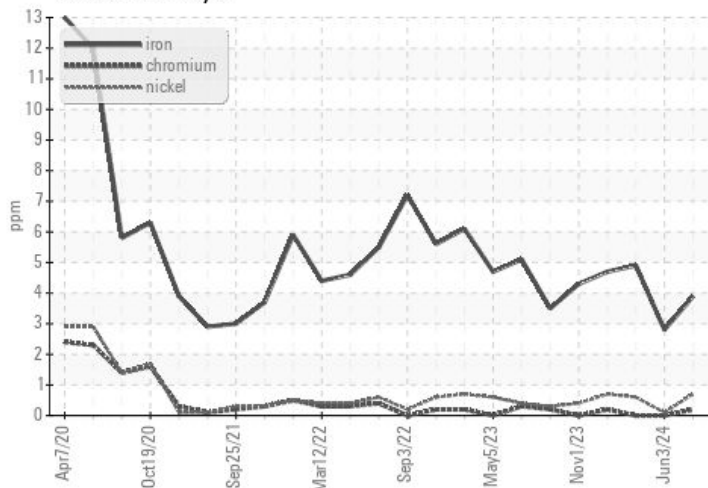
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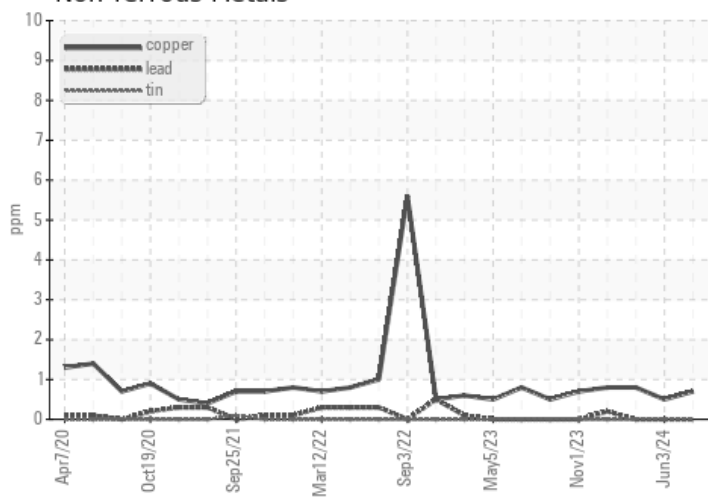


Graphs

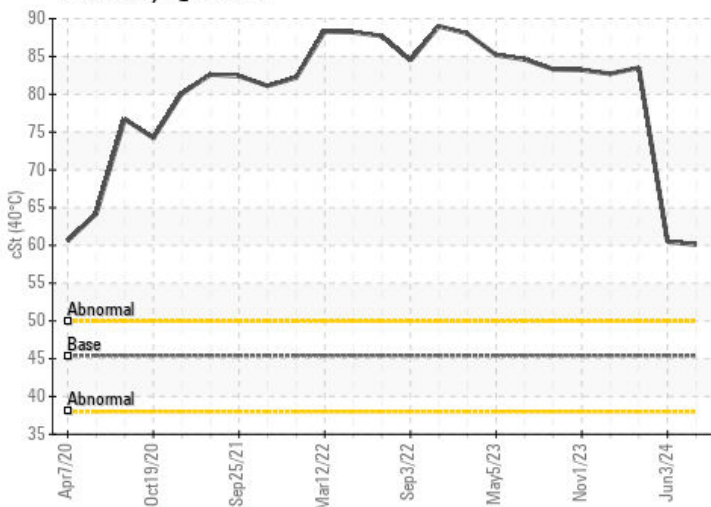
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

