

LIEBHERR

CONSTRUCTION EQUIPMENT



[(375852)] LIEBHERR R920 054849-1705 - Hydraulic System

Sample No: LH0270472

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL



ROBERT FRASER DBA FRASER LANDSCAPING
498 NORTHLINE ROAD
FENELON FALLS, ON
CA K0M 1N0
Contact: Service Manager



SAMPLE INFORMATION

Sample Number	LH0270472	LH0274676	---	---
Sample Date	15 Aug 2023	09 Aug 2023	---	---
Machine Hours	483	596	---	---
Oil Hours	0	0	---	---
Oil Changed	N/A	Not Changd	---	---
Sample Status	SEVERE	NORMAL	---	---



OIL CONDITION

Visc @ 40°C	cSt	45.5	46.3	---	---
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CONTAMINATION

Water	%	0.041	---	---	---
Particles >4µm		189135	844	---	---
Particles >6µm		156990	150	---	---
Particles >14µm		52386	20	---	---
ISO 4406:1999 (c)		25/24/23	17/14/11	---	---
Silicon	ppm	4	1	---	---
Sodium	ppm	1	0	---	---
Potassium	ppm	3	0	---	---



WEAR METALS

Iron	ppm	4	1	---	---
Copper	ppm	7	2	---	---
Lead	ppm	<1	<1	---	---
Tin	ppm	0	0	---	---
Aluminum	ppm	<1	<1	---	---
Chromium	ppm	0	0	---	---
Molybdenum	ppm	0	0	---	---
Nickel	ppm	<1	<1	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	0	0	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	810	194	---	---
Magnesium	ppm	4	<1	---	---
Zinc	ppm	685	831	---	---
Phosphorus	ppm	631	685	---	---
Barium	ppm	<1	0	---	---
Boron	ppm	1	<1	---	---

T:
F:

Diagnosis

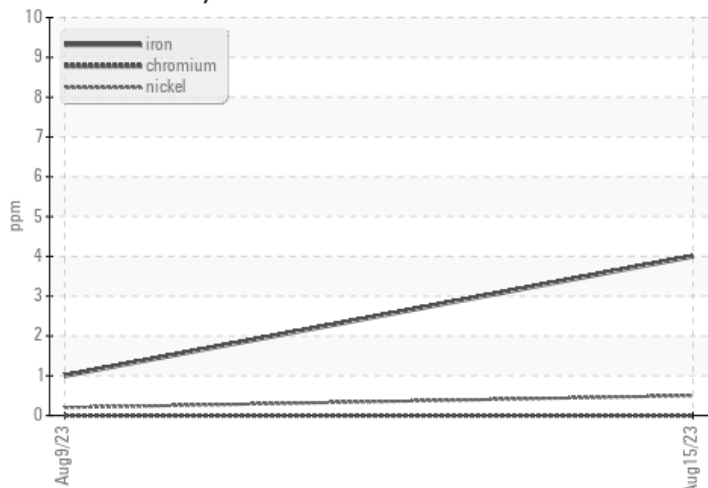
We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We advise that you follow the water drain-off procedure for this component. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. Free water present. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Depot: ROBKAU
Unique No: 5629246
Signed: Kevin Marson
Report Date: 18 Aug 2023

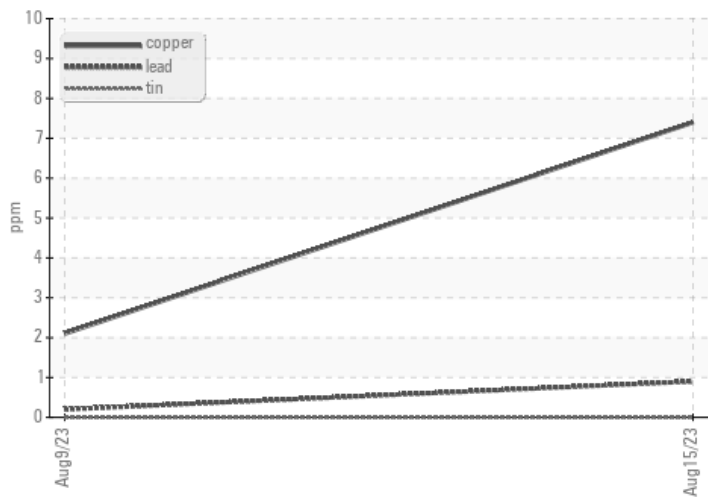


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

