

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R92254275 - Hydraulic System

Sample No: LH0281046

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL



#### SAMPLE INFORMATION

Sample Number	LH0281046	LH0260501	LH0238609	---
Sample Date	18 Mar 2024	31 Jul 2023	22 Feb 2023	---
Machine Hours	5489	1546	518	---
Oil Hours	0	0	0	---
Oil Changed	Not Changd	Not Changd	Not Changd	---
Sample Status	SEVERE	SEVERE	NORMAL	---

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#### OIL CONDITION

Visc @ 40°C	cSt	42.0	42.5	44.1	---
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#### CONTAMINATION

Water	%	NEG	NEG	NEG	---
Particles >4µm		1536	5722	378	---
Particles >6µm		467	643	92	---
Particles >14µm		31	33	6	---
ISO 4406:1999 (c)		18/16/12	20/17/12	16/14/10	---
Silicon	ppm	6	6	6	---
Sodium	ppm	4	3	2	---
Potassium	ppm	<1	<1	<1	---



#### WEAR METALS

Iron	ppm	15	13	7	---
Copper	ppm	61	50	11	---
Lead	ppm	6	6	2	---
Tin	ppm	0	2	<1	---
Aluminum	ppm	0	<1	<1	---
Chromium	ppm	<1	<1	<1	---
Molybdenum	ppm	0	<1	0	---
Nickel	ppm	0	0	0	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	0	<1	<1	---
Vanadium	ppm	0	0	0	---



#### ADDITIVES

Calcium	ppm	1086	1126	1395	---
Magnesium	ppm	3	4	4	---
Zinc	ppm	708	727	678	---
Phosphorus	ppm	603	650	668	---
Barium	ppm	0	0	0	---
Boron	ppm	0	1	<1	---

#### Diagnosis

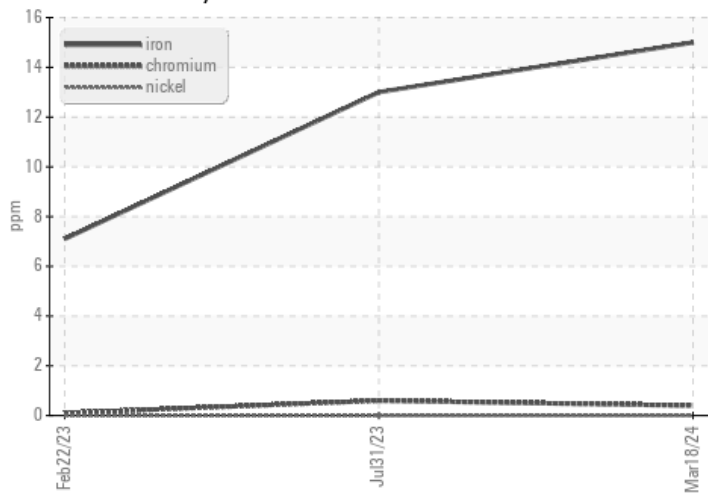
We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Copper ppm levels are severe. Lead ppm levels are abnormal. Bearing and/or bushing wear is indicated. 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. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: LIERIC  
 Unique No: 5748565  
 Signed: Kevin Marson  
 Report Date: 21 Mar 2024

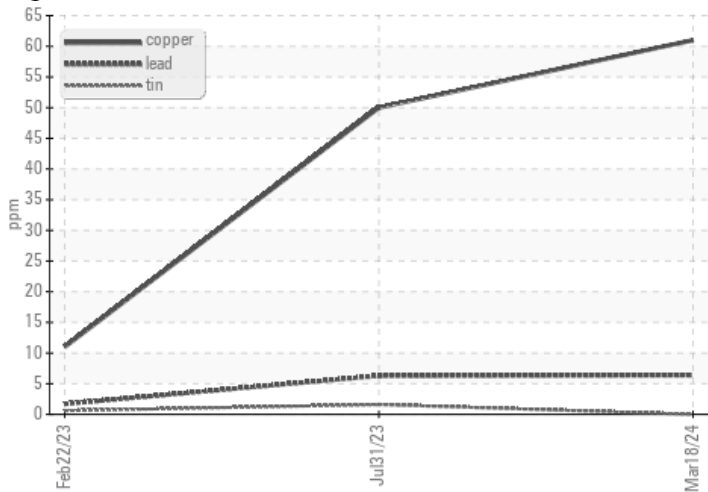


### GRAPHS

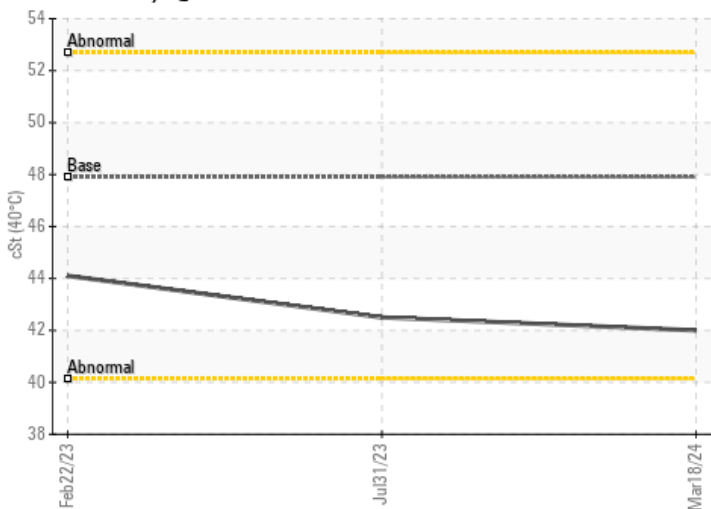
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count

