LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH50M 112359-1216 - Hydraulic System

Sample No: LH0225062

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL

RICHMOND STEEL
12707 170 STREET
EDMONTON, AB
CA T5V 1L9
Contact: Sandor Arguello

T: (780)447-3391
F:

SAMPLE INFORMATION

Sample Number		**LH0225062**	LH0221780	LH0224908	LH0151149
Sample Date		**24 May 2023**	02 Nov 2022	26 May 2022	17 Feb 2022
Machine Hours		**6000**	5107	11976	4009
Oil Hours		**0**	0	0	0
Oil Changed		**N/A**	Changed	N/A	Not Changd
Sample Status		**ABNORMAL**	ABNORMAL	SEVERE	ABNORMAL

OIL CONDITION

Visc @ 40°C	cSt	**33.7**	32.7	25.0	25.3

CONTAMINATION

Water	%	**0.051**	---	---	---
Particles >4µm		**58441**	4843	256278	32957
Particles >6µm		**16052**	808	94142	1972
Particles >14µm		**1025**	42	7026	35
ISO 4406:1999 (c)		**23/21/17**	19/17/13	25/24/20	22/18/12
Silicon	ppm	**1**	1	2	2
Sodium	ppm	**9**	<1	1	1
Potassium	ppm	**<1**	0	<1	<1

WEAR METALS

PQ		**---**	---	8	3
Iron	ppm	**44**	55	78	65
Copper	ppm	**3**	4	9	7
Lead	ppm	**<1**	<1	2	<1
Tin	ppm	**0**	0	<1	<1
Aluminum	ppm	**<1**	0	<1	<1
Chromium	ppm	**<1**	1	2	2
Molybdenum	ppm	**0**	0	0	0
Nickel	ppm	**0**	<1	0	<1
Titanium	ppm	**0**	0	0	0
Silver	ppm	**0**	0	0	0
Manganese	ppm	**<1**	1	1	1
Vanadium	ppm	**0**	0	0	0

ADDITIVES

Calcium	ppm	**224**	334	525	576
Magnesium	ppm	**2**	2	2	3
Zinc	ppm	**589**	563	430	434
Phosphorus	ppm	**565**	558	497	495
Barium	ppm	**0**	0	0	0
Boron	ppm	**<1**	<1	1	<1

Diagnosis

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Depot: RICEDM
Unique No: 5580537
Signed: Kevin Marson
Report Date: 26 May 2023

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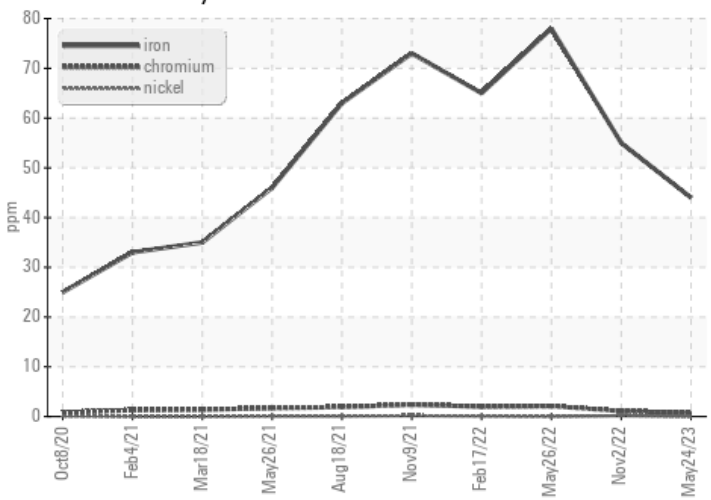
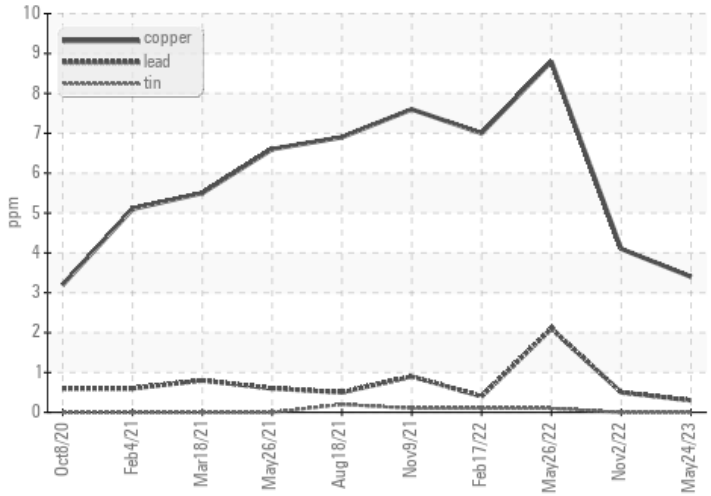
GRAPHS

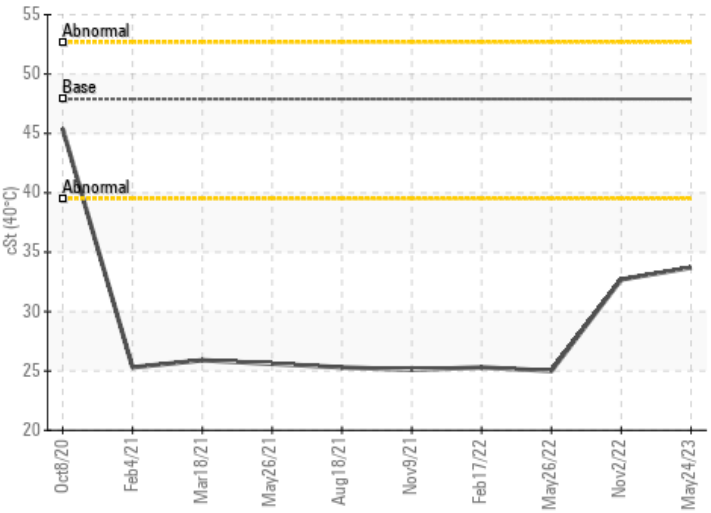
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count