

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L586 058216-1334 - Hydraulic System

Sample No: LH0284800

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL



Sample Information

Sample Number	LH0284800	LH0278406	LH0269548	LH0238507
Sample Date	01 Jun 2024	25 Nov 2023	19 Jul 2023	27 Aug 2022
Machine Hours	9663	8879	7908	0
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Not Changd	Changed
Sample Status	SEVERE	SEVERE	SEVERE	SEVERE

MODERN CONSTRUCTION (1983) LTD.
 364 BRIGGS CROSS ROAD
 STILESVILLE, NB
 CA E1G 3G3
 Contact: Blaine Cail
 blaine.cail@moderngroup.ca
 T:
 F:



Oil Condition

Visc @ 40°C	cSt	41.6	39.6	41.7	42.0



Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		21911	14985	52703	26105
Particles >6µm		1294	317	5877	378
Particles >14µm		94	24	113	8
ISO 4406:1999 (c)		22/17/14	21/15/12	23/20/14	22/16/10
Silicon	ppm	59	56	53	46
Sodium	ppm	4	7	4	4
Potassium	ppm	7	14	6	5



Wear Metals

PQ		0	0	0	0
Iron	ppm	75	74	71	58
Copper	ppm	9	9	8	7
Lead	ppm	14	15	14	15
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	30	28	26	23
Chromium	ppm	7	6	6	4
Molybdenum	ppm	0	0	0	0
Nickel	ppm	0	<1	<1	0
Titanium	ppm	1	<1	1	1
Silver	ppm	0	<1	0	0
Manganese	ppm	1	<1	1	1
Vanadium	ppm	0	0	<1	<1



Additives

Calcium	ppm	1308	1303	1331	1355
Magnesium	ppm	27	27	27	24
Zinc	ppm	729	736	732	682
Phosphorus	ppm	591	593	639	564
Barium	ppm	<1	<1	<1	0
Boron	ppm	3	4	3	<1

Diagnosis

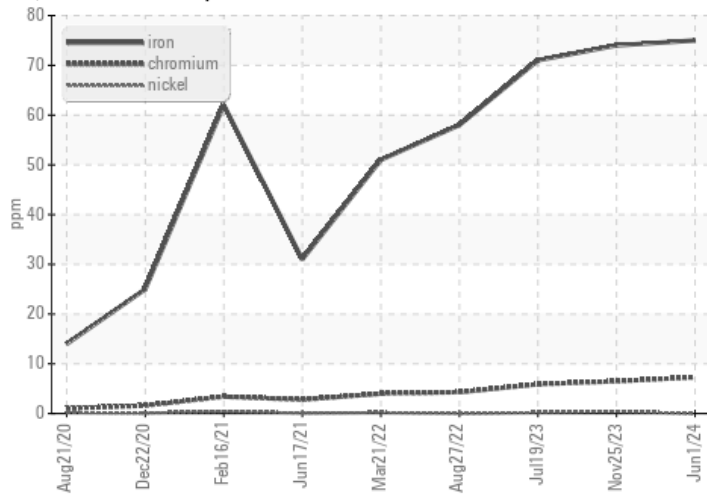
We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Chromium and iron ppm levels are abnormal. Aluminum ppm levels are noted. Ring wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a light amount of silt (particulates < 14 microns in size) present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component. 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: MODSTI
 Unique No: 5798983
 Signed: Kevin Marson
 Report Date: 13 Jun 2024

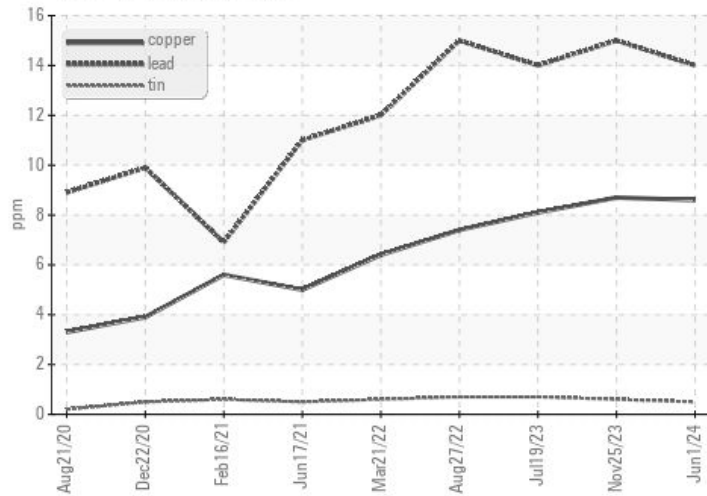


Graphs

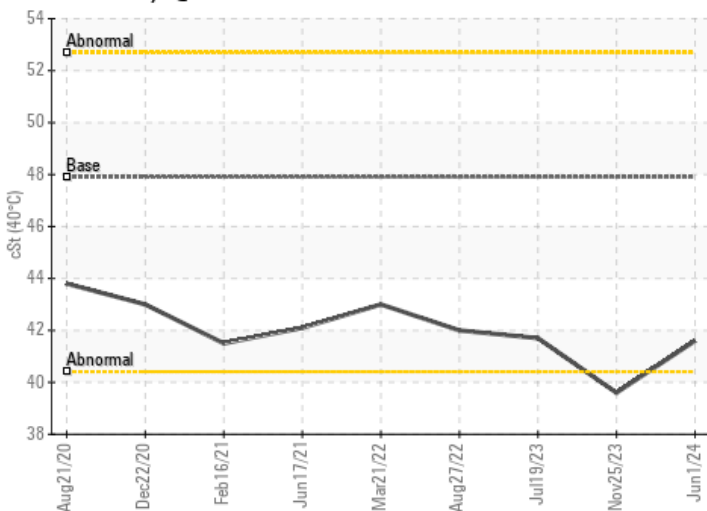
● Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



● Particle Count

