

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 118290-1216 - Hydraulic System

Sample No: LH0158909

Oil Type: ESSO UNIVIS EXTRA



Weyerhaeuser
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 Kenora, ON
 CA P9N 3X8
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Sample Information

Sample Number	LH0158909	LH0158895	LH0158881	LH0158867
Sample Date	10 Oct 2021	05 Aug 2021	10 Jun 2021	11 Apr 2021
Machine Hours	9990	9041	8025	6995
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Changed	Changed	Not Chngd
Sample Status	ABNORMAL	ABNORMAL	SEVERE	NORMAL



Oil Condition

Visc @ 40°C	cSt	26.2	26.7	27.8	27.7
Acid Number (AN)	mg KOH/g	0.65	0.67	0.66	0.67



Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		1089	484	21245	11467
Particles >6µm		307	112	7480	3688
Particles >14µm		29	11	1303	187
ISO 4406:1999 (c)		17/15/12	16/14/11	22/20/18	21/19/15
Silicon	ppm	1	1	1	1
Sodium	ppm	<1	<1	1	1
Potassium	ppm	<1	1	<1	1



Wear Metals

Iron	ppm	16	14	15	13
Copper	ppm	3	2	2	2
Lead	ppm	<1	<1	<1	<1
Tin	ppm	<1	0	0	<1
Aluminum	ppm	<1	<1	<1	0
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	0	0	0	<1
Nickel	ppm	0	0	0	<1
Titanium	ppm	0	0	0	0
Silver	ppm	<1	<1	<1	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	158	166	189	201
Magnesium	ppm	<1	<1	1	1
Zinc	ppm	541	543	565	577
Phosphorus	ppm	431	443	427	421
Barium	ppm	0	0	<1	0
Boron	ppm	<1	<1	0	<1

Diagnosis

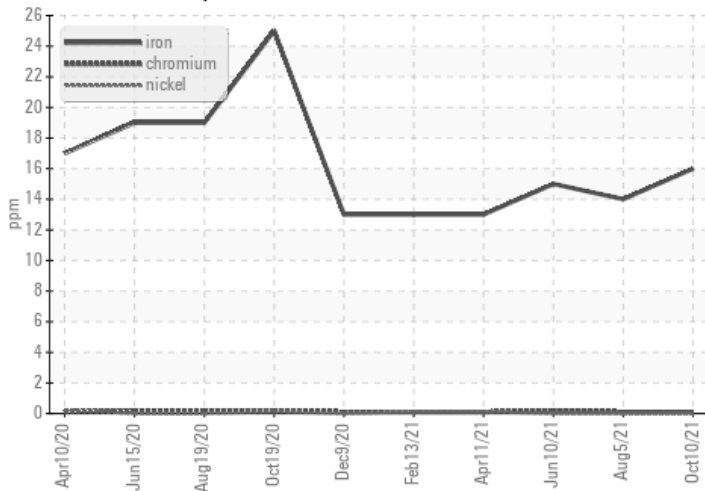
Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 22 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: WEY100KEN
Unique No: 5302487
Signed: Kevin Marson
Report Date: 19 Oct 2021

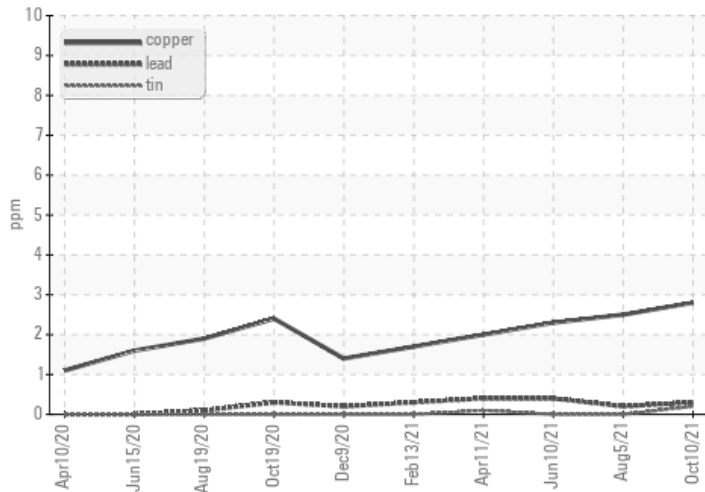


Graphs

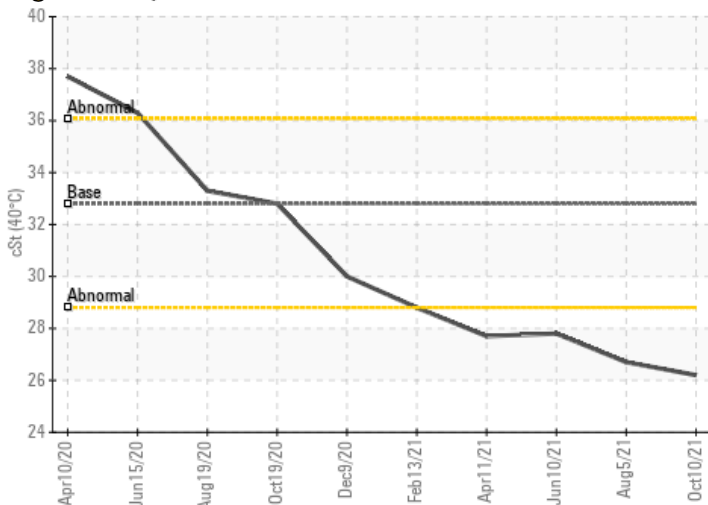
Ferrous Alloys



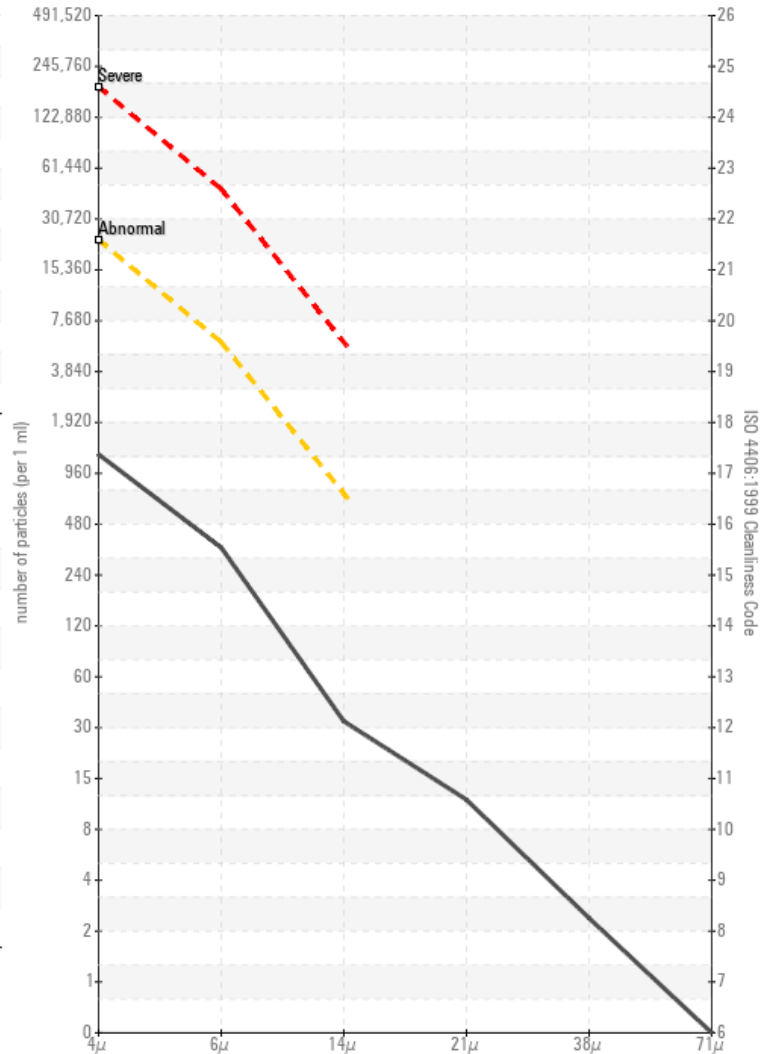
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

