LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR L586 059873-1334 - Hydraulic System

Sample No: LH

Oil Type: NOT GIVEN

Bird`s Hill Gravel and Stone Ltd.
1 Terracon Place
Winnipeg, MB
CA R2J 4B3
Contact: Joel Malkoske
Jmalkoske@glacialagg.ca
T: (204)663-0064
F:

Sample Information

Sample Number		**LH**	LH0224800	LH0250088	LH0242699
Sample Date		**09 Apr 2024**	30 Oct 2023	05 Jun 2023	05 Nov 2022
Machine Hours		**8009**	7081	0	4989
Oil Hours		**0**	0	0	0
Oil Changed		**Not Changd**	Not Changd	Not Changd	Not Changd
Sample Status		**ABNORMAL**	ABNORMAL	ABNORMAL	NORMAL

Oil Condition

Visc @ 40°C	cSt	**42.1**	42.3	42.8	42.9

Contamination

Water	%	**NEG**	NEG	NEG	NEG
Particles >4µm		**74349**	61277	54789	13780
Particles >6µm		**7145**	17000	11721	2952
Particles >14µm		**50**	943	436	419
ISO 4406:1999 (c)		**23/20/13**	23/21/17	23/21/16	21/19/16
Silicon	ppm	**16**	14	15	9
Sodium	ppm	**2**	1	2	2
Potassium	ppm	**4**	2	3	6

Wear Metals

Iron	ppm	**35**	31	26	21
Copper	ppm	**10**	8	8	8
Lead	ppm	**12**	12	10	10
Tin	ppm	**<1**	<1	<1	<1
Aluminum	ppm	**6**	4	4	3
Chromium	ppm	**2**	2	2	1
Molybdenum	ppm	**0**	0	0	0
Nickel	ppm	**0**	<1	<1	0
Titanium	ppm	**<1**	0	<1	<1
Silver	ppm	**0**	<1	0	0
Manganese	ppm	**<1**	0	<1	<1
Vanadium	ppm	**0**	0	0	0

Additives

Calcium	ppm	**1123**	1116	1098	1224
Magnesium	ppm	**31**	24	22	17
Zinc	ppm	**738**	740	742	697
Phosphorus	ppm	**601**	611	637	647
Barium	ppm	**<1**	<1	0	0
Boron	ppm	**1**	<1	<1	1

Diagnosis

We advise that you check all areas where dirt can enter the system. The filter change at the time of sampling has been noted. 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. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Depot: BIRWIN
Unique No: 5762006
Signed: Kevin Marson
Report Date: 16 Apr 2024

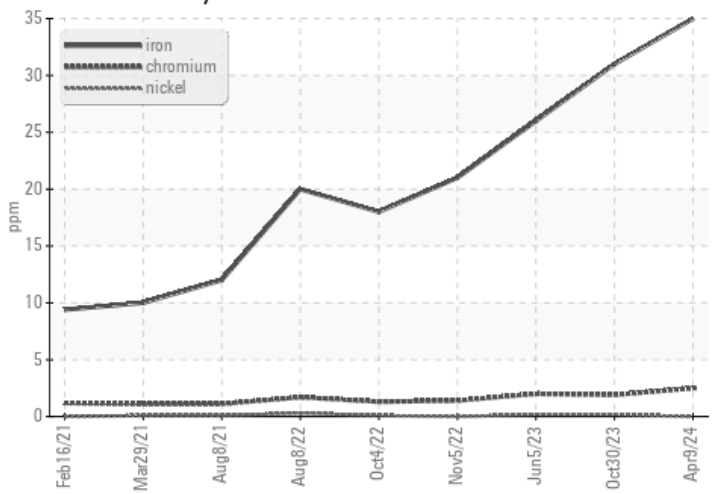
Report Id: BIRWIN [WCAMIS] 02628874 (Generated: 04/16/2024 16:24:53) Rev: 1

Submitted By: Vincent Blanchette

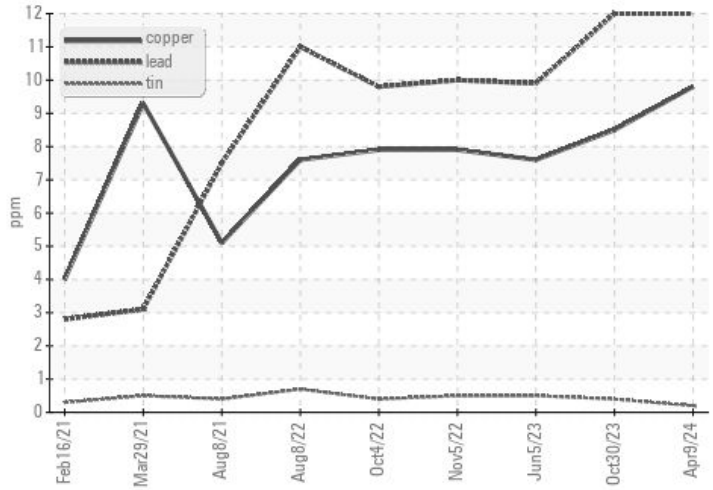
LIEBHERR
CONSTRUCTION EQUIPMENT

Graphs

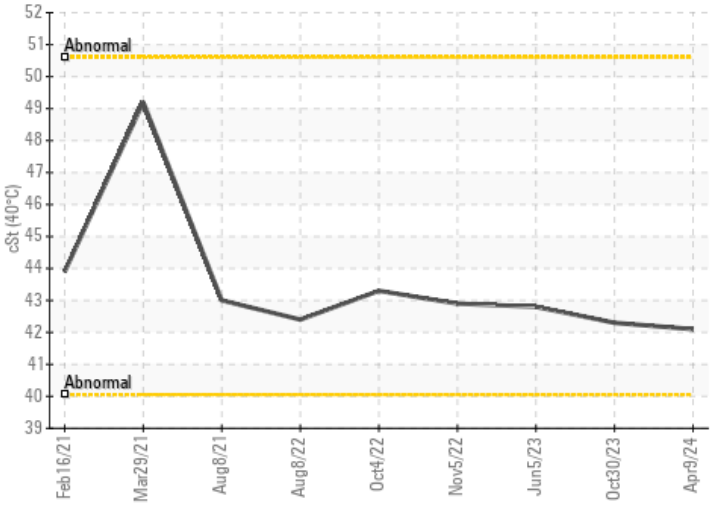
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count