



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Machine Id
LIEBHERR LH-50 083207-1203
Component
Transmission (Manual)
Fluid
KLONDIKE HEAVY DUTY 15W40 (5 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0270332	LH0260592	LH0213806
Sample Date		Client Info		12 Mar 2024	08 Jul 2023	15 Jan 2023
Machine Age	hrs	Client Info		19953	18266	17068
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	10	11	9
Chromium	ppm	ASTM D5185(m)	>5	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>7	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<1	1	2
Lead	ppm	ASTM D5185(m)	>45	0	0	<1
Copper	ppm	ASTM D5185(m)	>225	17	15	8
Tin	ppm	ASTM D5185(m)	>10	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

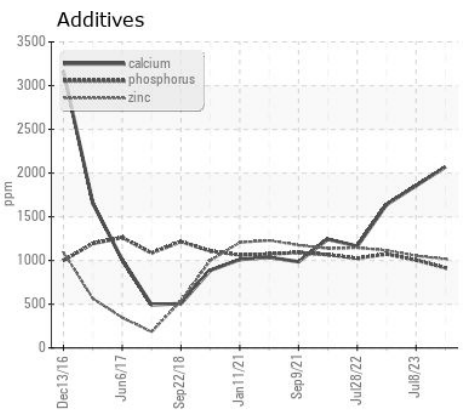
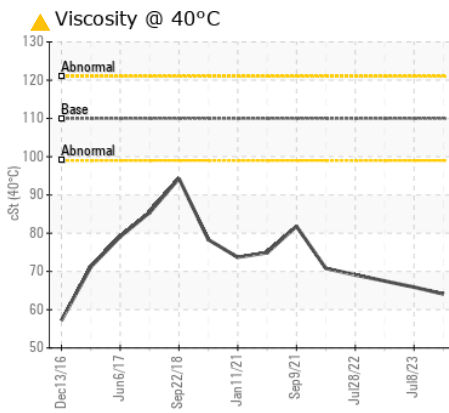
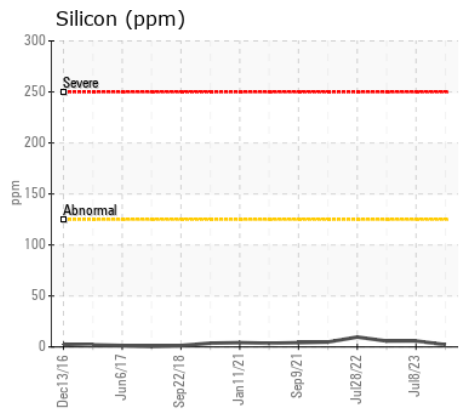
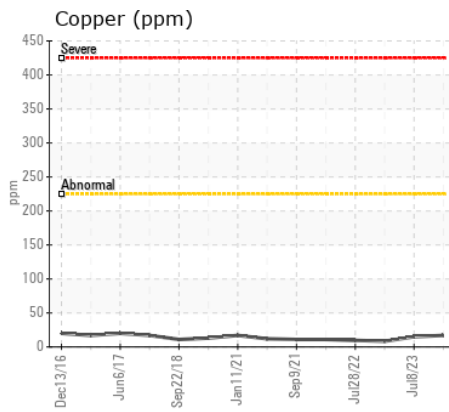
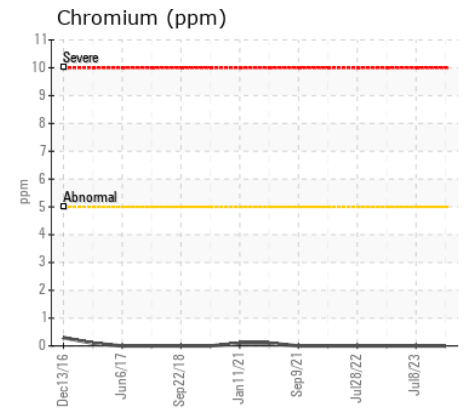
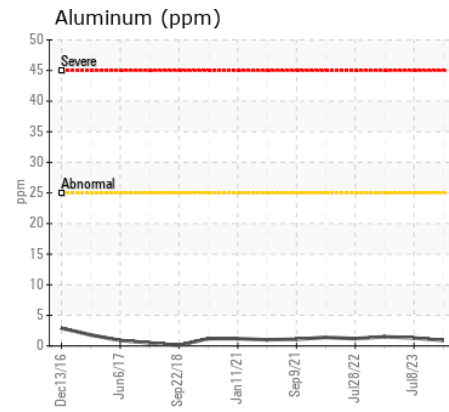
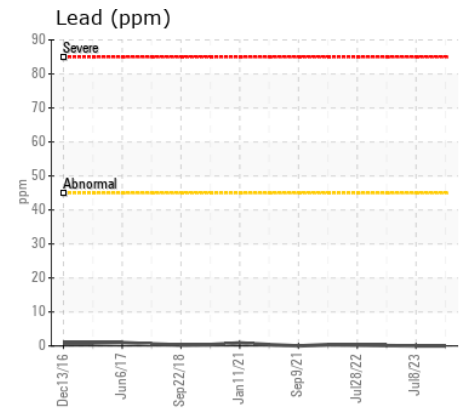
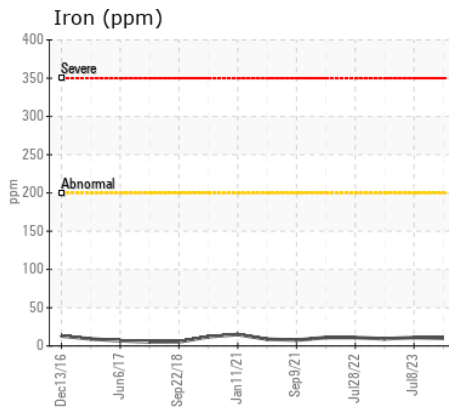
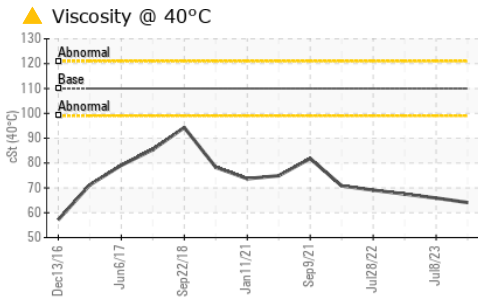
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185(m)	>125	2	6	6
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	VLITE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 80 range, advise investigate. The condition of the fluid is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		1	2	2
Boron	ppm	ASTM D5185(m)	70	14	13	10
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		15	23	38
Manganese	ppm	ASTM D5185(m)		<1	3	3
Magnesium	ppm	ASTM D5185(m)	50	211	331	578
Calcium	ppm	ASTM D5185(m)	2000	2070	1855	1640
Phosphorus	ppm	ASTM D5185(m)	1000	915	1004	1073
Zinc	ppm	ASTM D5185(m)	1100	1017	1054	1116
Sulfur	ppm	ASTM D5185(m)	3400	3015	3082	3101
Visc @ 40°C	cSt	ASTM D7279(m)	110	▲ 64.1	▲ 65.9	▲ 67.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0270332
Lab Number : 02625008
Unique Number : 5750127
Test Package : MOB 1
Received : 27 Mar 2024
Tested : 27 Mar 2024
Diagnosed : 27 Mar 2024 - Kevin Marson

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 BURNABY, BC
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.