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LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(341437)
Machine Id
LIEBHERR LH50M 128335-1216
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

WEAR

Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

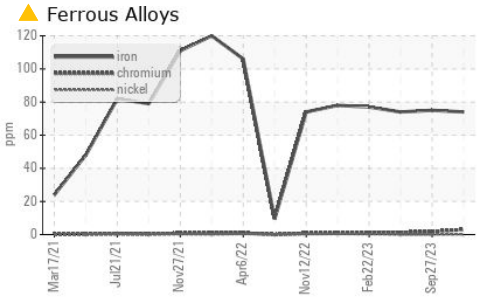
CONTAMINATION

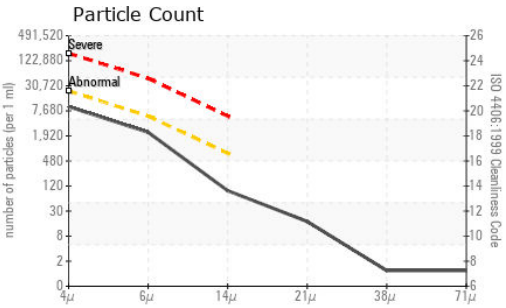
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

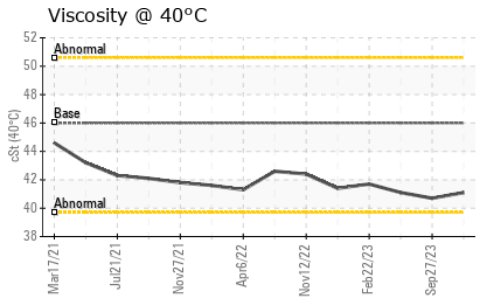
FLUID CONDITION

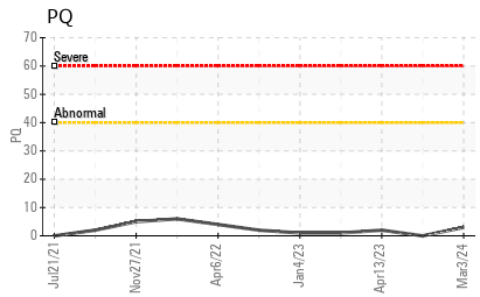
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

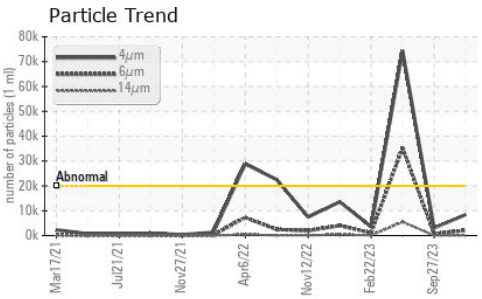
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0274728	LH0270152	LH0256663
Sample Date		Client Info		03 Mar 2024	27 Sep 2023	13 Apr 2023
Machine Age	hrs	Client Info		12359	10573	8766
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	SEVERE
PQ		ASTM D8184*	>40	3	0	2
Iron	ppm	ASTM D5185(m)	>50	▲ 74	▲ 75	▲ 74
Chromium	ppm	ASTM D5185(m)	>5	3	2	1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>2	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>4	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>10	3	3	3
Tin	ppm	ASTM D5185(m)	>2	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>17	1	1	1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	8433	3040	▲ 74387
Particles >6µm		ASTM D7647	>5000	2050	744	▲ 35308
Particles >14µm		ASTM D7647	>640	82	33	▲ 5464
Particles >21µm		ASTM D7647	>160	15	7	▲ 1637
Particles >38µm		ASTM D7647	>40	1	1	● 60
Particles >71µm		ASTM D7647	>10	1	0	6
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/18/14	19/17/12	▲ 23/22/20
Silt	scalar	Visual*	NONE	NONE	NONE	VLITE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	.2%
Sodium	ppm	ASTM D5185(m)		2	2	1
Boron	ppm	ASTM D5185(m)	5	<1	<1	<1
Barium	ppm	ASTM D5185(m)	5	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	5	0	0	0
Manganese	ppm	ASTM D5185(m)		<1	<1	1
Magnesium	ppm	ASTM D5185(m)	25	2	2	2
Calcium	ppm	ASTM D5185(m)	200	235	263	311
Phosphorus	ppm	ASTM D5185(m)	300	612	613	691
Zinc	ppm	ASTM D5185(m)	370	780	793	802
Sulfur	ppm	ASTM D5185(m)	2500	1948	2042	2170
Visc @ 40°C	cSt	ASTM D7279(m)	46	41.1	40.7	41.1

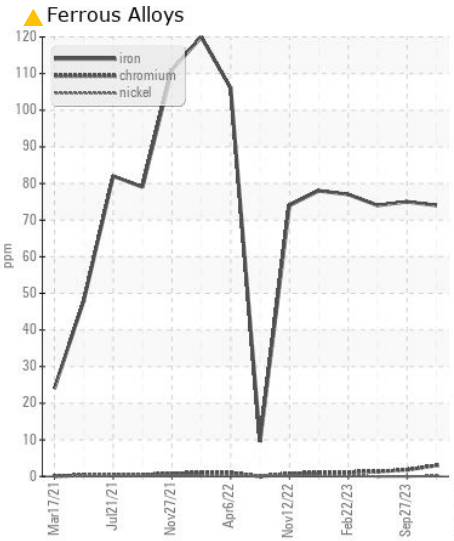


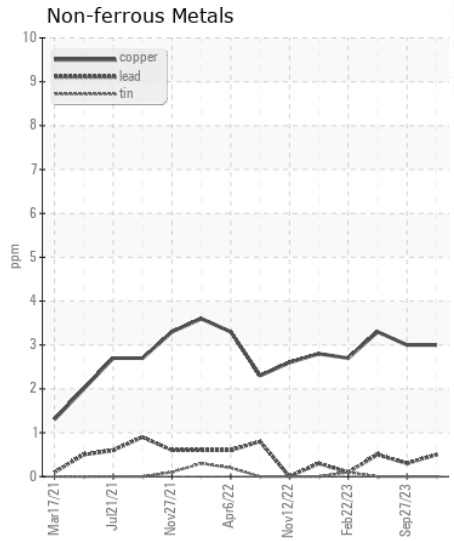


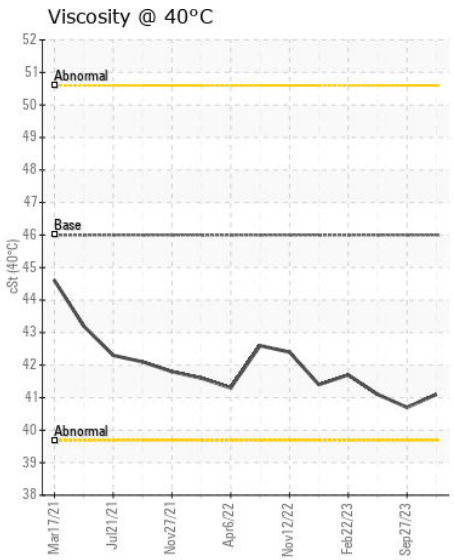


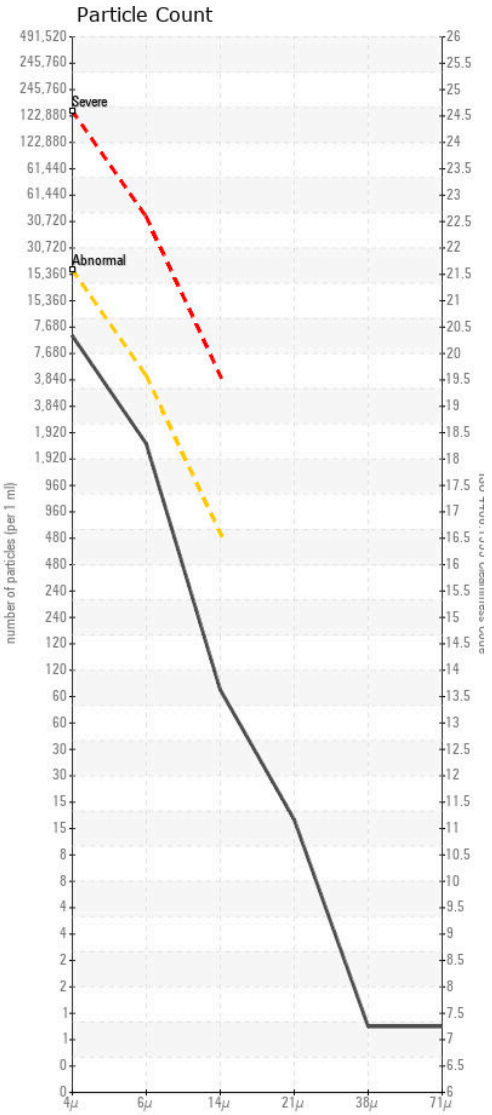












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0274728
Lab Number : 02619578
Unique Number : 5736688
Test Package : MOB 1 (Additional Tests: PQ, PrtCount)

Received : 04 Mar 2024
Tested : 05 Mar 2024
Diagnosed : 05 Mar 2024 - Kevin Marson

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.

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