



LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH26M 124532-1252
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (200 LTR)

RECOMMENDATION

We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0240688	LH0215077	LH0180979
Sample Date		Client Info		06 Sep 2022	04 Apr 2022	02 Jul 2021
Machine Age	hrs	Client Info		2544	1978	932
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	Changed
Sample Status				ABNORMAL	ATTENTION	NORMAL

WEAR

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

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184*		1	---	---
Iron	ppm	ASTM D5185(m)	>60	▲ 73	57	27
Chromium	ppm	ASTM D5185(m)	>40	<1	<1	<1
Nickel	ppm	ASTM D5185(m)		0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>5	<1	1	<1
Lead	ppm	ASTM D5185(m)	>5	2	2	<1
Copper	ppm	ASTM D5185(m)	>15	6	5	2
Tin	ppm	ASTM D5185(m)	>5	0	<1	0
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

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

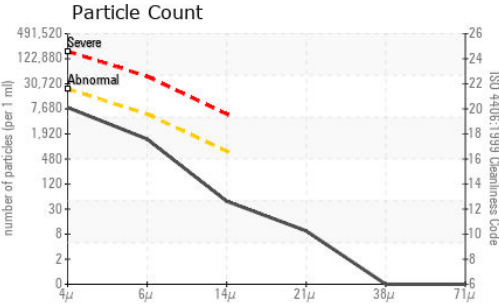
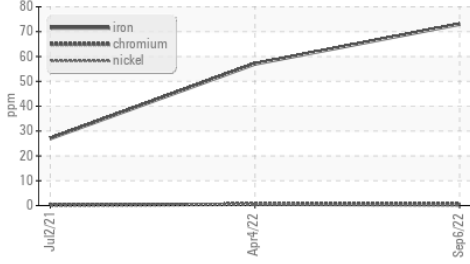
Silicon	ppm	ASTM D5185(m)	>15	3	3	3
Potassium	ppm	ASTM D5185(m)	>20	<1	2	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	7196	33335	2192
Particles >6µm		ASTM D7647	>5000	1263	4560	277
Particles >14µm		ASTM D7647	>640	41	231	7
Particles >21µm		ASTM D7647	>160	8	40	2
Particles >38µm		ASTM D7647	>40	0	2	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/17/13	22/19/15	18/15/10
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE	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

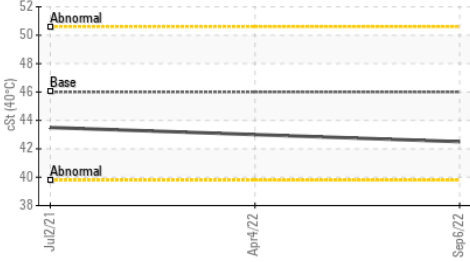
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	2	2
Boron	ppm	ASTM D5185(m)	5	1	1	1
Barium	ppm	ASTM D5185(m)	5	0	0	0
Molybdenum	ppm	ASTM D5185(m)	5	0	<1	<1
Manganese	ppm	ASTM D5185(m)		1	<1	<1
Magnesium	ppm	ASTM D5185(m)	25	4	5	5
Calcium	ppm	ASTM D5185(m)	200	872	990	1270
Phosphorus	ppm	ASTM D5185(m)	300	600	609	640
Zinc	ppm	ASTM D5185(m)	370	658	702	729
Sulfur	ppm	ASTM D5185(m)	2500	2743	2927	3245
Visc @ 40°C	cSt	ASTM D7279(m)	46	42.5	43.0	43.5

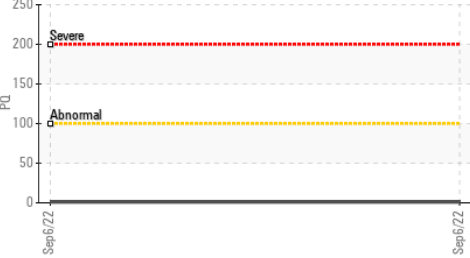
▲ Ferrous Alloys



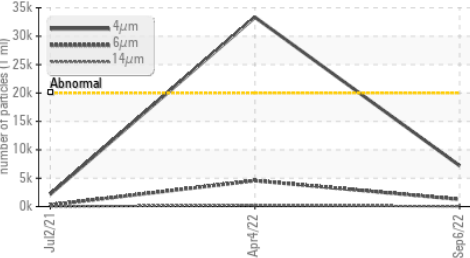
Viscosity @ 40°C



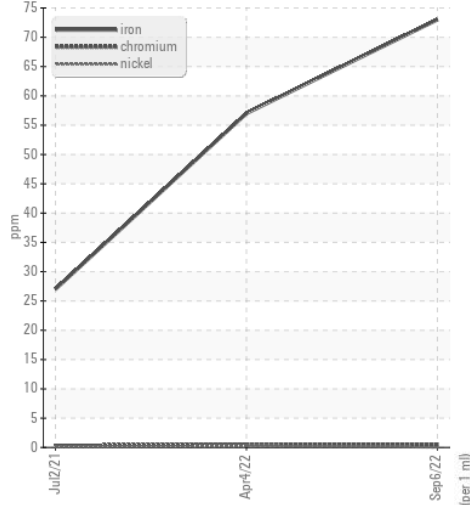
PQ



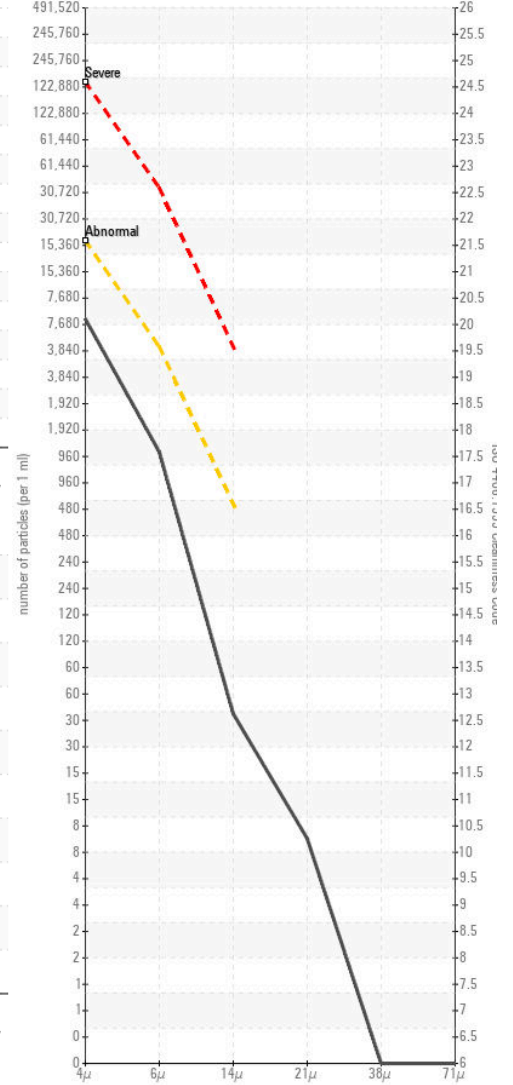
Particle Trend



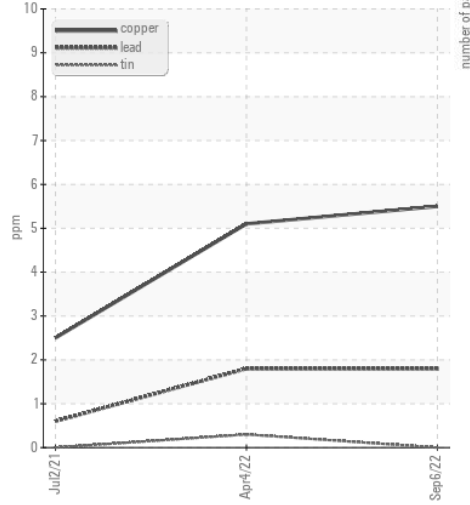
▲ Ferrous Alloys



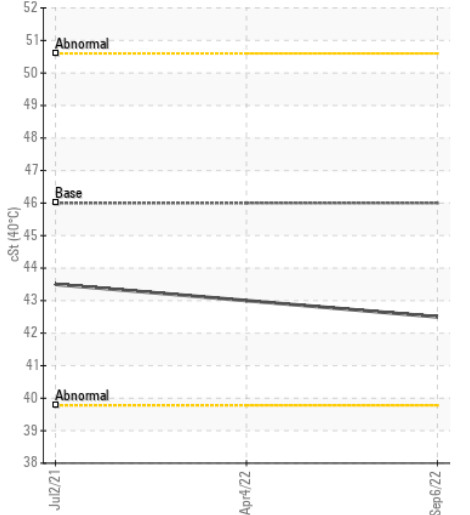
Particle Count



Non-ferrous Metals



Viscosity @ 40°C



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0240688 **Received** : 13 Sep 2022
Lab Number : 02510375 **Tested** : 14 Sep 2022
Unique Number : 5451345 **Diagnosed** : 14 Sep 2022 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ, PrtCount)

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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