



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L586 045792
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where dirt can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 75W80 Tractor TDH Fluid. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

WEAR

All component wear rates are normal.

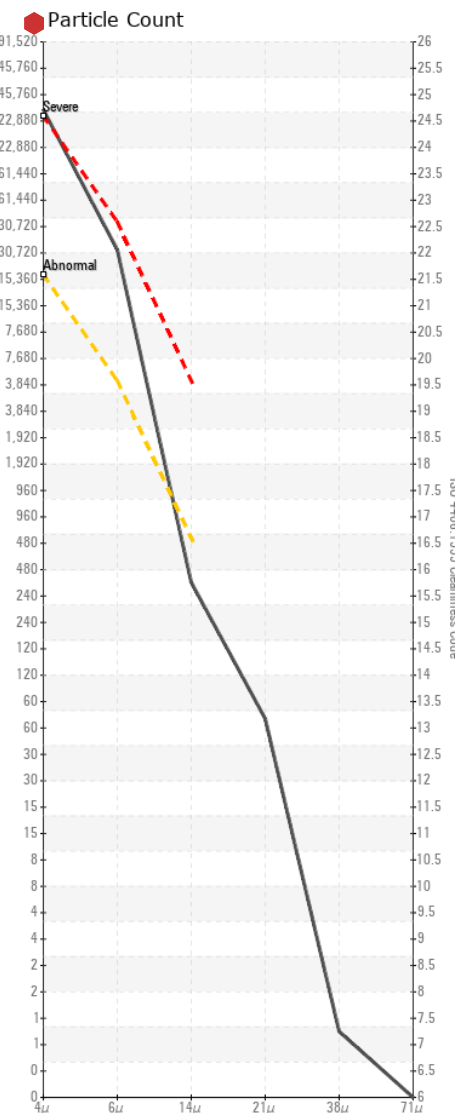
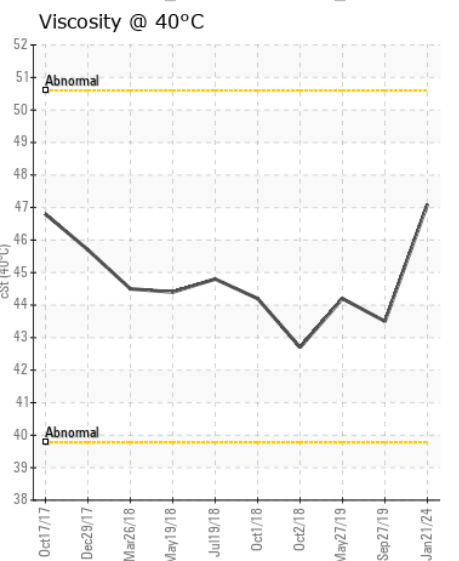
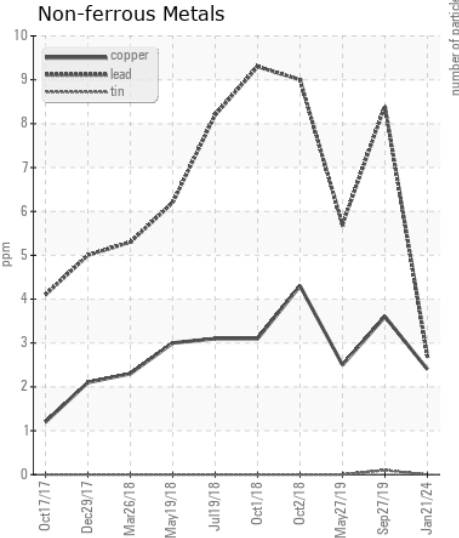
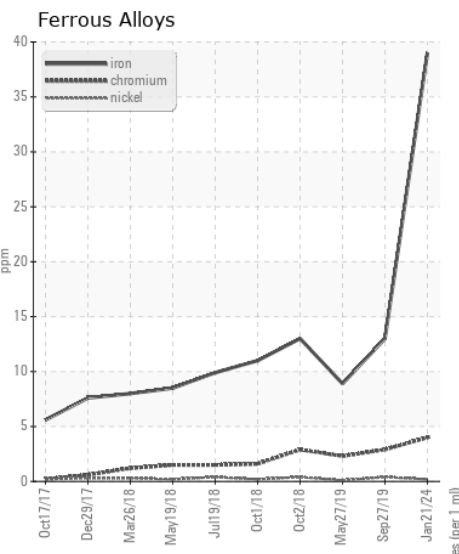
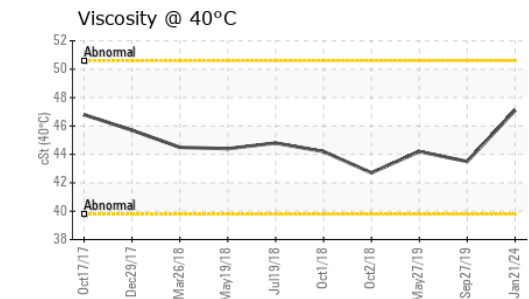
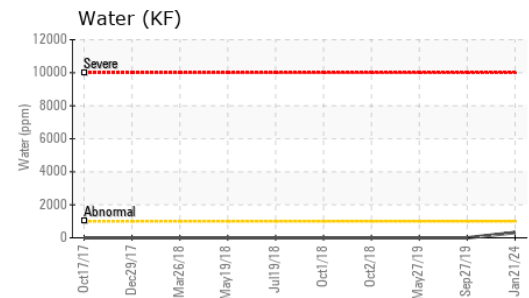
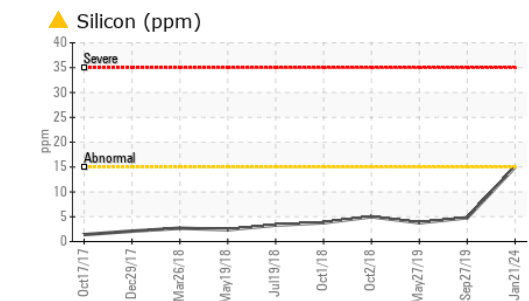
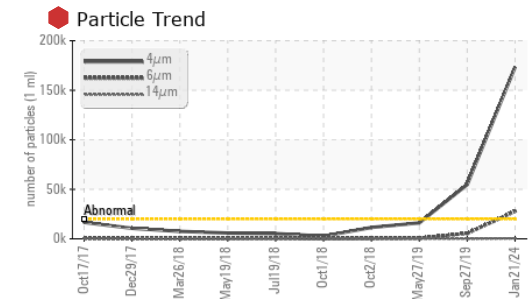
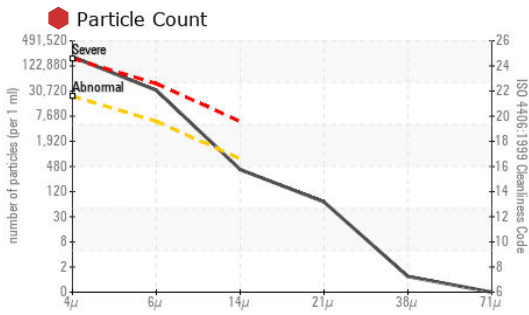
CONTAMINATION

There is a high 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 water content is negligible.

FLUID CONDITION

The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0278653	LH	LH
Sample Date		Client Info		21 Jan 2024	27 Sep 2019	27 May 2019
Machine Age	hrs	Client Info		18497	6204	4966
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	Not Changd	Not Changd
Sample Status				SEVERE	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>50	39	13	9
Chromium	ppm	ASTM D5185(m)	>5	4	3	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>5	5	2	2
Lead	ppm	ASTM D5185(m)	>15	3	8	6
Copper	ppm	ASTM D5185(m)	>10	2	4	2
Tin	ppm	ASTM D5185(m)	>2	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
Silicon	ppm	ASTM D5185(m)	>15	▲ 15	5	4
Potassium	ppm	ASTM D5185(m)	>20	6	2	1
Water	%	ASTM D6304*	>0.1	0.032	---	---
ppm Water	ppm	ASTM D6304*	>1000	320	---	---
Particles >4µm		ASTM D7647	>20000	● 173424	▲ 54761	16078
Particles >6µm		ASTM D7647	>5000	▲ 27792	▲ 5517	653
Particles >14µm		ASTM D7647	>640	357	42	13
Particles >21µm		ASTM D7647	>160	60	4	3
Particles >38µm		ASTM D7647	>40	1	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	● 25/22/16	▲ 23/20/13	21/17/11
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	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	.2%	NEG	NEG
Sodium	ppm	ASTM D5185(m)		<1	0	<1
Boron	ppm	ASTM D5185(m)		3	0	<1
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		<1	0	<1
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		17	5	5
Calcium	ppm	ASTM D5185(m)		1923	559	539
Phosphorus	ppm	ASTM D5185(m)		732	645	619
Zinc	ppm	ASTM D5185(m)		856	798	779
Sulfur	ppm	ASTM D5185(m)		2575	3227	3231
Visc @ 40°C	cSt	ASTM D7279(m)		47.1	43.5	44.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0278653 **Received** : 22 Jan 2024
Lab Number : 02610312 **Diagnosed** : 23 Jan 2024
Unique Number : 5711398 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KF, PrtCount)

CBM Aggregates
 135 West Beaver Creek Road
 Richmond Hill, ON
 CA L4B 4R7
 Contact: Service Manager

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.

T:
F: