



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(354956)
Machine Id
LIEBHERR A922 128674-1509
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH	LH0274096	LH0238916
Sample Date		Client Info		18 Apr 2024	01 Sep 2023	20 Jan 2023
Machine Age	hrs	Client Info		3800	2993	2095
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		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	16	19	22
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		6	4	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	2	2	3
Lead	ppm	ASTM D5185(m)	>30	<1	3	4
Copper	ppm	ASTM D5185(m)	>125	23	79	▲ 138
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

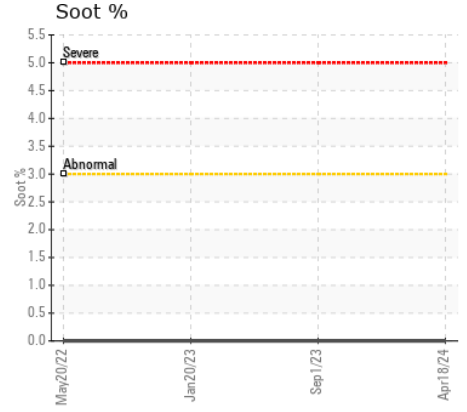
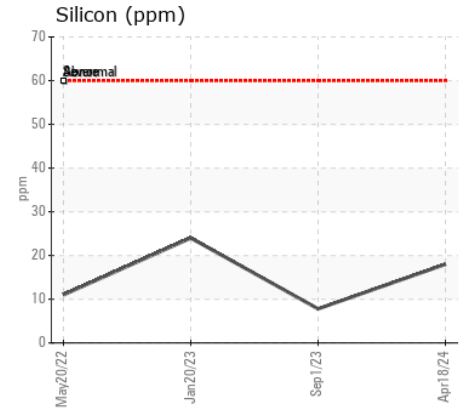
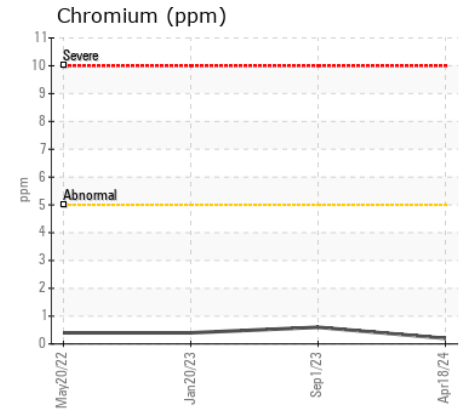
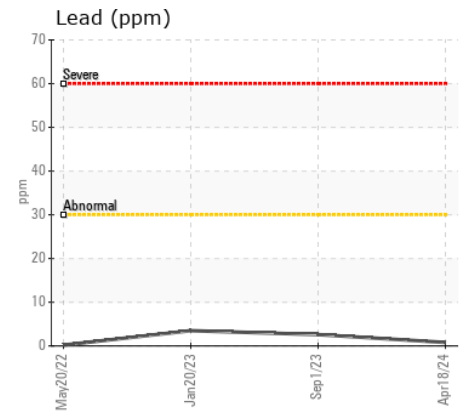
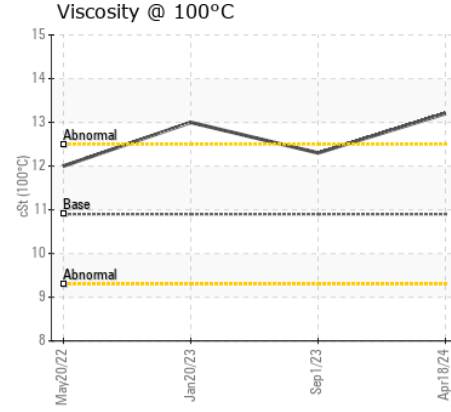
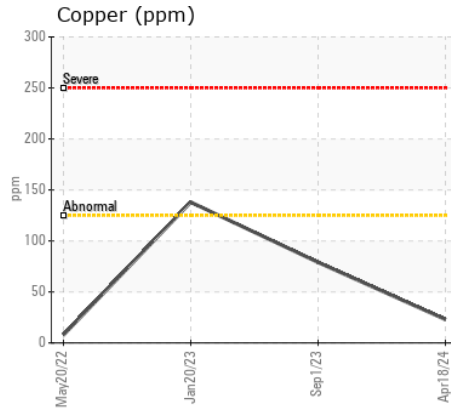
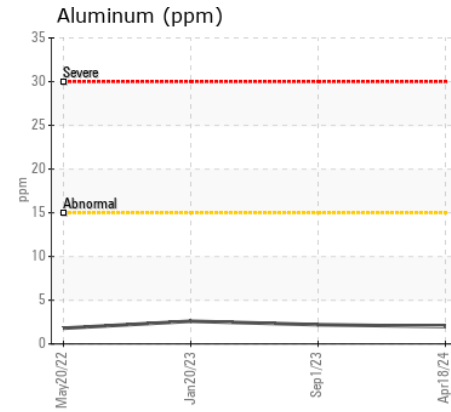
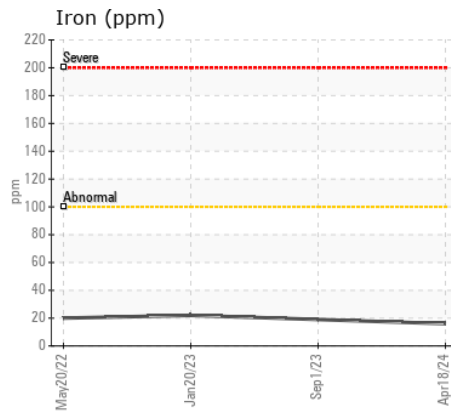
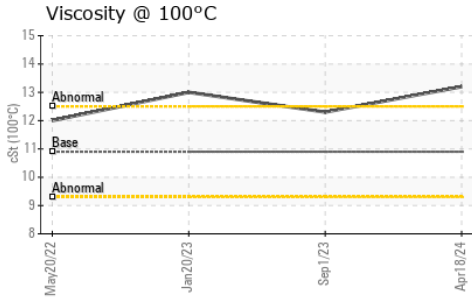
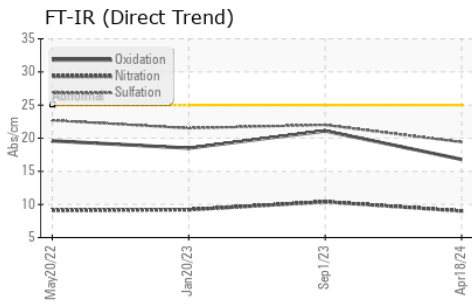
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	18	8	24
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	9.0	10.4	9.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.4	22.0	21.5
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>75	3	5	3
Boron	ppm	ASTM D5185(m)	250	9	21	3
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	44	42	49
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	725	808	804
Calcium	ppm	ASTM D5185(m)	3000	1551	1451	1607
Phosphorus	ppm	ASTM D5185(m)	1150	977	1095	1122
Zinc	ppm	ASTM D5185(m)	1350	1190	1267	1289
Sulfur	ppm	ASTM D5185(m)	4250	2411	2589	2661
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.8	21.1	18.5
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	13.2	12.3	13.0



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH
Lab Number : 02630912
Unique Number : 5772065
Test Package : MOB 1 (Additional Tests: Visual)

Received : 23 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Kevin Marson

Transec Common Inc.
 2075 Boul. Fortin
 Laval, QC
 CA H7S 1P4
 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.

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F: