



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(360524)
Machine Id
LIEBHERR R926 053645-1827
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		LH0216691	LH0216685	LH0216684
Sample Date		Client Info		04 Mar 2024	20 Nov 2023	03 Jul 2023
Machine Age	hrs	Client Info		3906	3000	2485
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	8	9	12
Chromium	ppm	ASTM D5185(m)	>5	0	0	<1
Nickel	ppm	ASTM D5185(m)	>5	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	3	4	2
Lead	ppm	ASTM D5185(m)	>30	0	0	<1
Copper	ppm	ASTM D5185(m)	>125	2	2	3
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

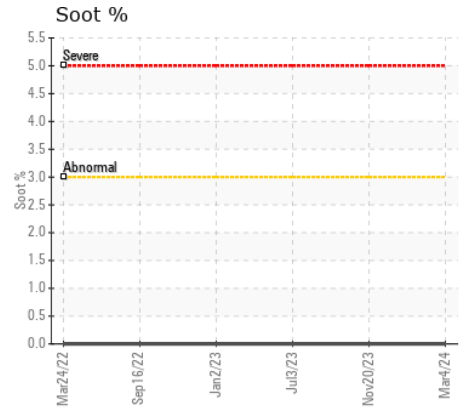
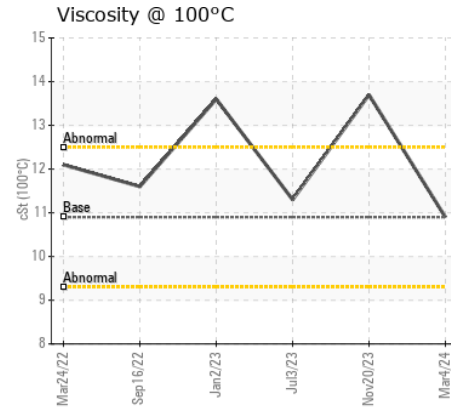
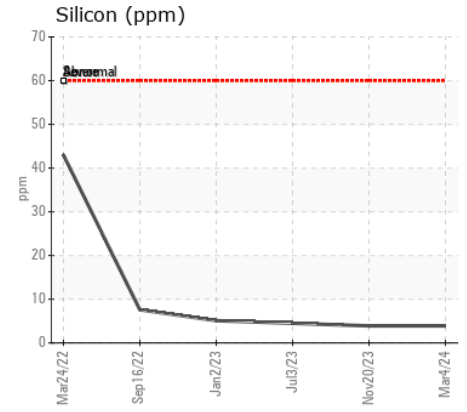
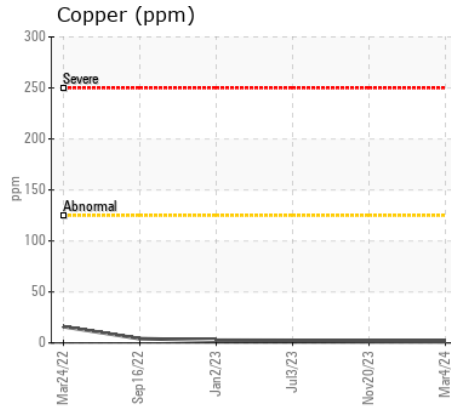
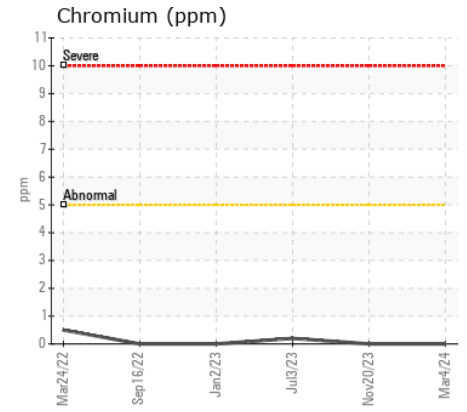
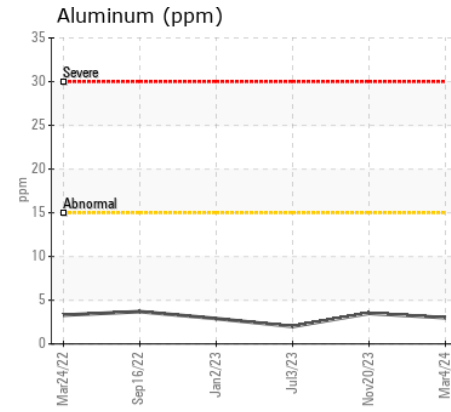
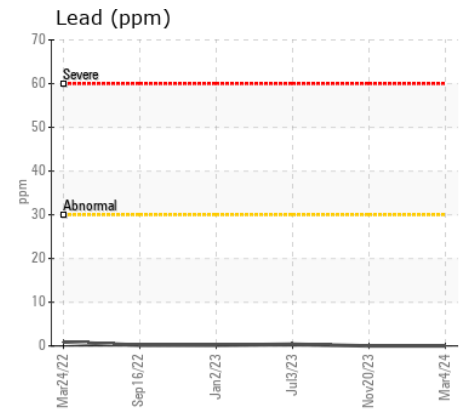
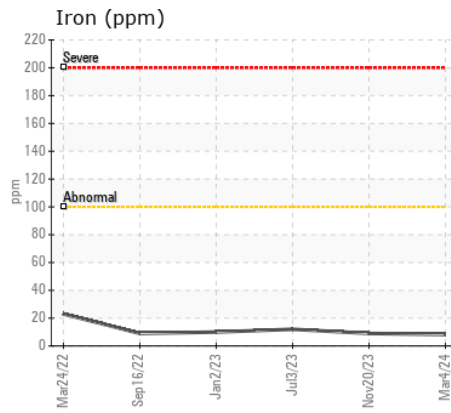
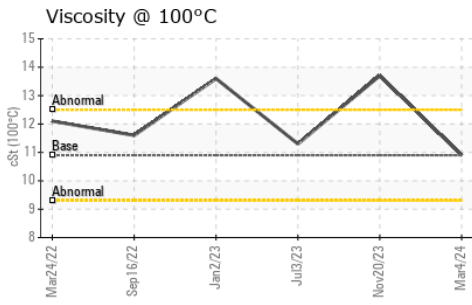
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	4	4	4
Potassium	ppm	ASTM D5185(m)	>20	2	0	<1
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	8.8	9.3	8.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.5	20.0	19.8
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>75	2	3	3
Boron	ppm	ASTM D5185(m)	250	50	35	15
Barium	ppm	ASTM D5185(m)	10	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	87	93	74
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)	450	225	132	738
Calcium	ppm	ASTM D5185(m)	3000	1985	2182	1446
Phosphorus	ppm	ASTM D5185(m)	1150	1000	1035	1097
Zinc	ppm	ASTM D5185(m)	1350	1159	1220	1252
Sulfur	ppm	ASTM D5185(m)	4250	3019	3023	2708
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.4	15.7	15.6
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	10.9	13.7	11.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0216691
Lab Number : 02620799
Unique Number : 5737909
Test Package : MOBCE
Received : 08 Mar 2024
Tested : 08 Mar 2024
Diagnosed : 08 Mar 2024 - Wes Davis

HAWKESBURY TRANSPORT EXCAVATION
 668 MAIN STREET EAST, CP 715
 HAWKESBURY, ON
 CA K6A 1A9
 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: