



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
1528-145795 LIEBHERR LH60C 1528-145795
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 5W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0017860	DJJ0017626	---
Sample Date		Client Info		13 Mar 2024	20 Oct 2023	---
Machine Age	hrs	Client Info		1771	948	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	6	10	---
Chromium	ppm	ASTM D5185m	>5	0	<1	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		0	1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>15	2	3	---
Lead	ppm	ASTM D5185m	>30	0	5	---
Copper	ppm	ASTM D5185m	>125	5	▲ 217	---
Tin	ppm	ASTM D5185m	>5	0	2	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

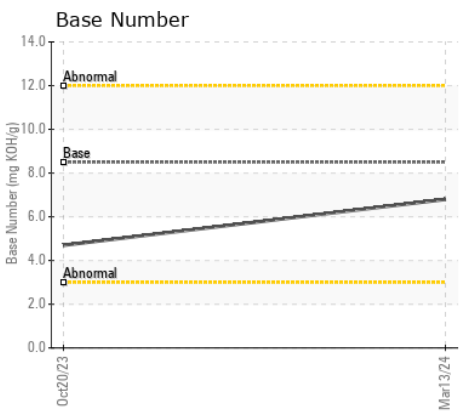
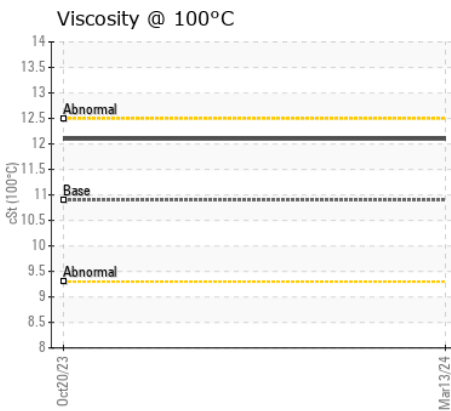
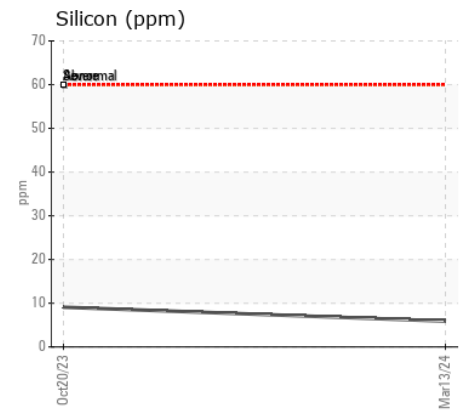
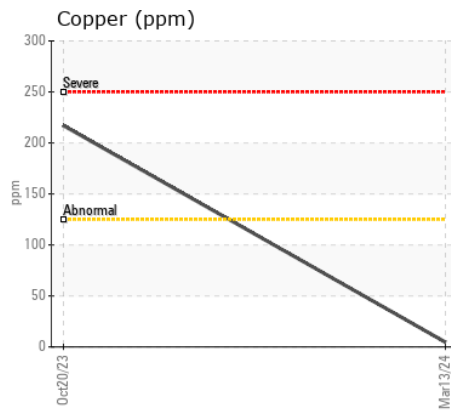
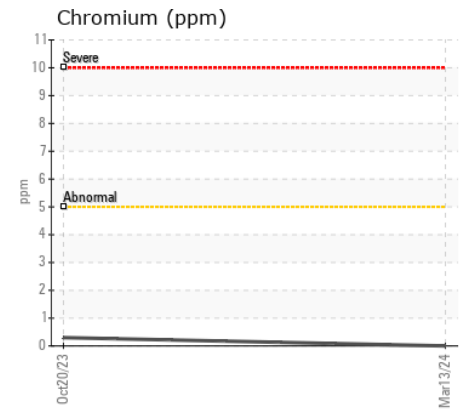
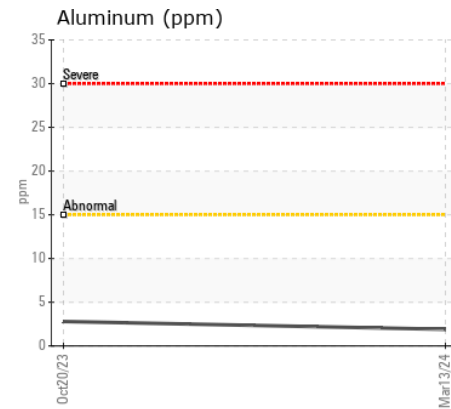
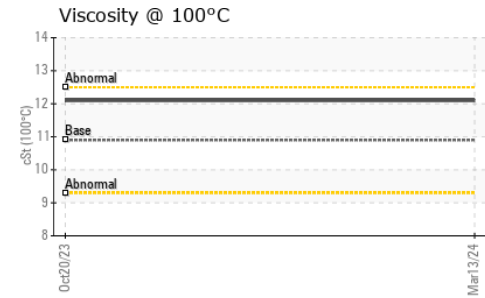
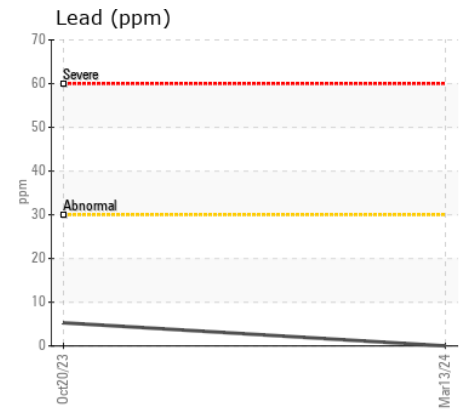
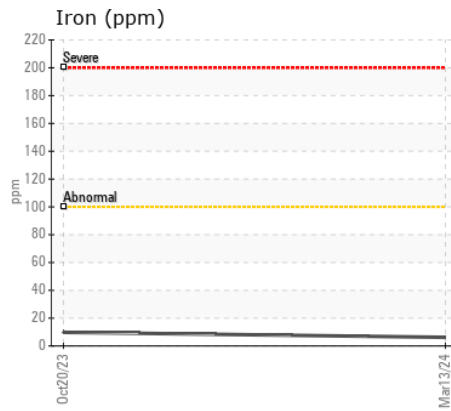
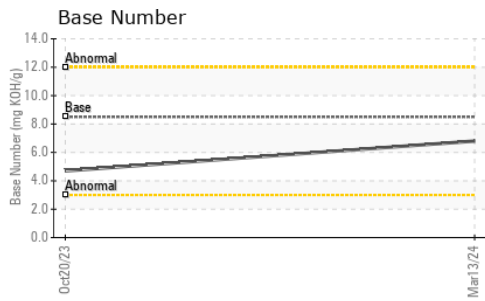
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	6	9	---
Potassium	ppm	ASTM D5185m	>20	4	24	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	11.6	11.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	39.4	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	7	---
Boron	ppm	ASTM D5185m	250	61	99	---
Barium	ppm	ASTM D5185m	10	<1	28	---
Molybdenum	ppm	ASTM D5185m	100	45	44	---
Manganese	ppm	ASTM D5185m		0	1	---
Magnesium	ppm	ASTM D5185m	450	620	922	---
Calcium	ppm	ASTM D5185m	3000	1549	1356	---
Phosphorus	ppm	ASTM D5185m	1150	812	662	---
Zinc	ppm	ASTM D5185m	1350	957	919	---
Sulfur	ppm	ASTM D5185m	4250	3706	2291	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.4	50.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.8	4.7	---
Visc @ 100°C	cSt	ASTM D445	10.9	12.1	12.1	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : DJJ0017860

Lab Number : 06123310

Unique Number : 10937461

Test Package : MOBCE (Additional Tests: TBN)

Received : 20 Mar 2024

Tested : 21 Mar 2024

Diagnosed : 21 Mar 2024 - Wes Davis

RIVER METALS RECYCLING - NEWPORT

P.O. BOX 72-220

NEWPORT, KY

US 41072

Contact: RYAN BOWDEN

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:

F: (859)291-0086