



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**LEIBHERR D-1**  
 Component  
**Diesel Engine**  
 Fluid  
**15W40 SUPER FLEET (14 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LP0001201</b>	WC0661448	WCDB3356
Sample Date		Client Info		<b>12 Apr 2024</b>	10 May 2022	13 May 2020
Machine Age	hrs	Client Info		<b>4036</b>	3646	3188
Oil Age	hrs	Client Info		<b>338</b>	130	250
Filter Age	hrs	Client Info		<b>338</b>	130	250
Oil Changed		Client Info		<b>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>9</b>	16	11
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	3
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

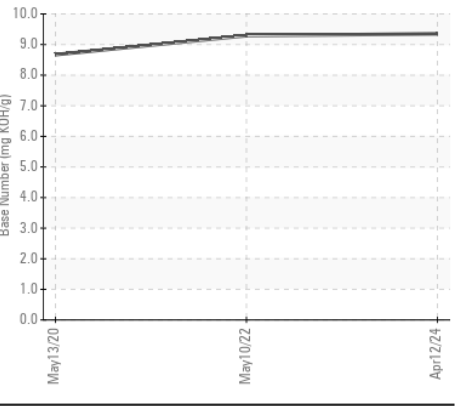
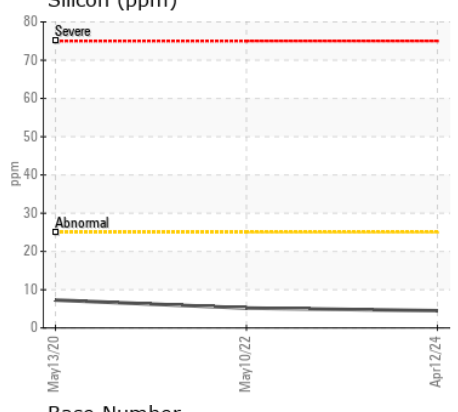
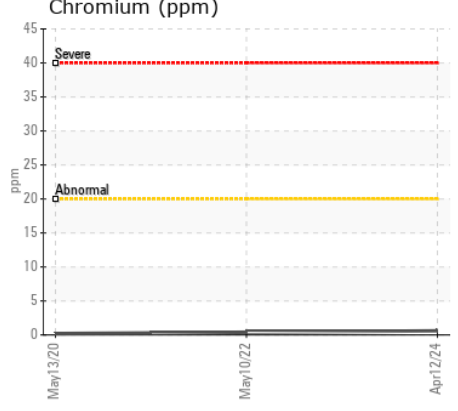
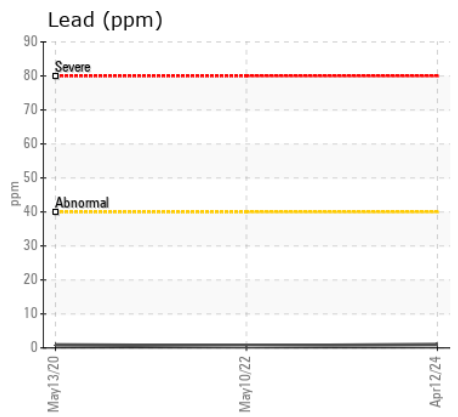
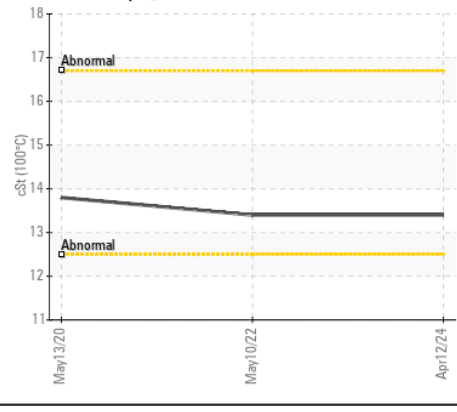
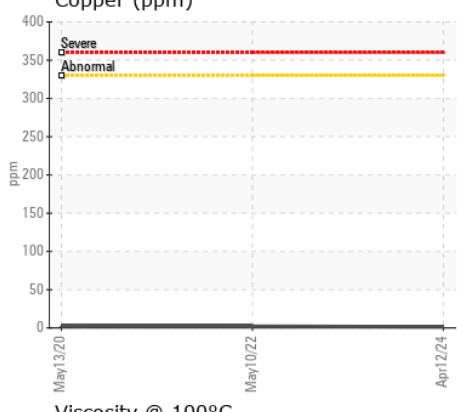
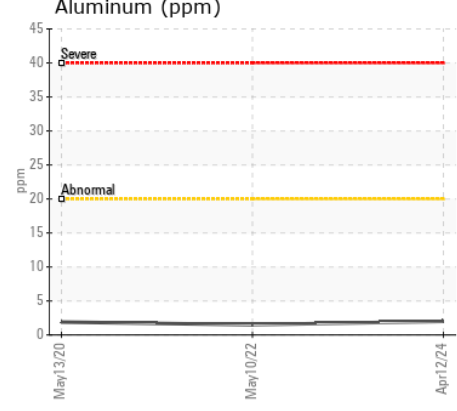
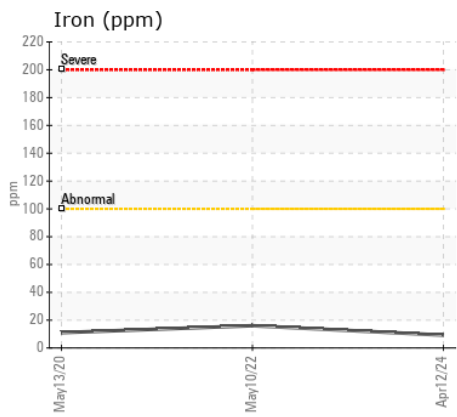
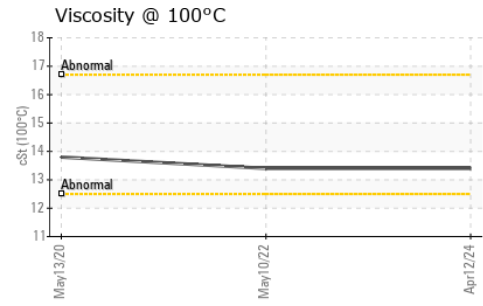
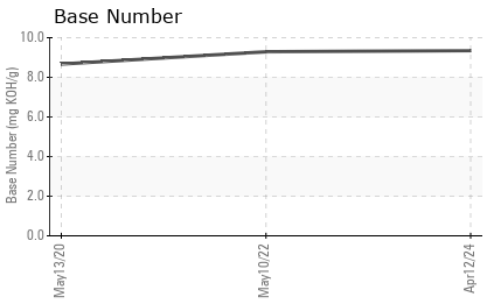
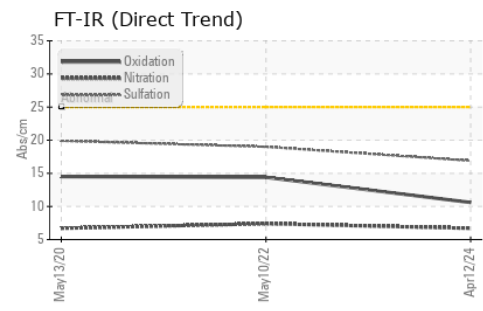
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	7
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	1	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.7	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.7</b>	7.4	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.9</b>	19.0	19.9
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>0</b>	<1	2
Boron	ppm	ASTM D5185m		<b>13</b>	17	44
Barium	ppm	ASTM D5185m		<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>35</b>	60	55
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>344</b>	896	682
Calcium	ppm	ASTM D5185m		<b>1781</b>	1248	1260
Phosphorus	ppm	ASTM D5185m		<b>950</b>	1082	928
Zinc	ppm	ASTM D5185m		<b>1104</b>	1319	1001
Sulfur	ppm	ASTM D5185m		<b>3750</b>	2761	2577
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>10.6</b>	14.4	14.5
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.35</b>	9.29	8.67
Visc @ 100°C	cSt	ASTM D445		<b>13.4</b>	13.4	13.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LP0001201 **Received** : 18 Apr 2024  
**Lab Number** : 06153820 **Tested** : 22 Apr 2024  
**Unique Number** : 10989243 **Diagnosed** : 22 Apr 2024 - Wes Davis  
**Test Package** : MOB 2

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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)