CONST

LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
LIEBHERR LH80M 1205-74802
Component
Diesel Engine
Fluid
MOBIL 15W40 (8 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

The aluminum level is abnormal. All other component wear rates are normal.

CONTAMINATION

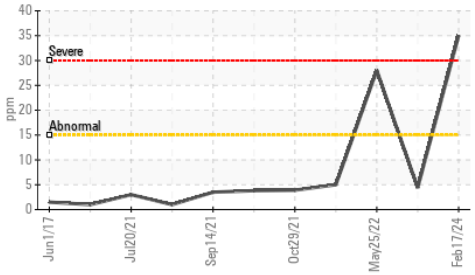
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

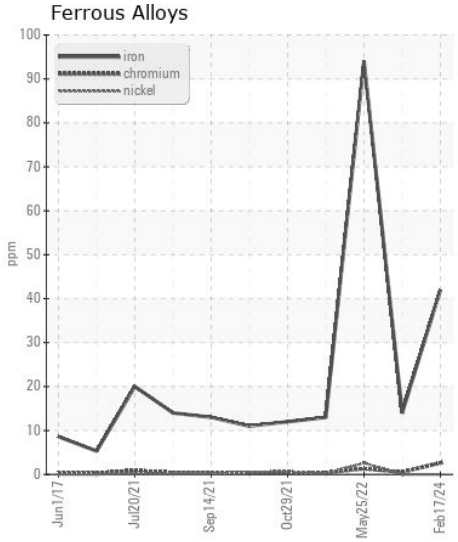
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0243739	LH0191304	LH0191300
Sample Date		Client Info		17 Feb 2024	21 Aug 2022	25 May 2022
Machine Age	hrs	Client Info		24159	23597	23504
Oil Age	hrs	Client Info		355	93	4
Filter Age	hrs	Client Info		355	93	4
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	SEVERE
Iron	ppm	ASTM D5185m	>100	42	14	▲ 94
Chromium	ppm	ASTM D5185m	>5	3	<1	1
Nickel	ppm	ASTM D5185m	>5	0	0	3
Titanium	ppm	ASTM D5185m		<1	<1	1
Silver	ppm	ASTM D5185m	>3	<1	<1	4
Aluminum	ppm	ASTM D5185m	>15	▲ 35	4	▲ 28
Lead	ppm	ASTM D5185m	>30	<1	3	▲ 73
Copper	ppm	ASTM D5185m	>125	24	21	▲ 68
Tin	ppm	ASTM D5185m	>5	2	2	▲ 13
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>60	12	12	15
Potassium	ppm	ASTM D5185m	>20	6	21	5
Fuel	%	ASTM D3524	>5	0.5	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	10.8	8.0	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	19.2	23.1
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	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>118	6	7	12
Boron	ppm	ASTM D5185m		51	98	94
Barium	ppm	ASTM D5185m		<1	7	3
Molybdenum	ppm	ASTM D5185m		0	<1	2
Manganese	ppm	ASTM D5185m		2	1	4
Magnesium	ppm	ASTM D5185m		710	669	723
Calcium	ppm	ASTM D5185m		1188	1357	1380
Phosphorus	ppm	ASTM D5185m		735	707	762
Zinc	ppm	ASTM D5185m		792	787	902
Sulfur	ppm	ASTM D5185m		2773	2962	2703
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	14.1	16.7
Base Number (BN)	mg KOH/g	ASTM D2896		6.7	10.1	8.4
Visc @ 100°C	cSt	ASTM D445		● 11.8	12.9	11.4

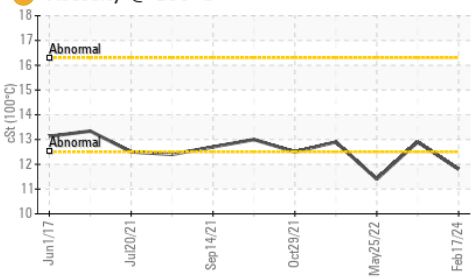
Aluminum (ppm)



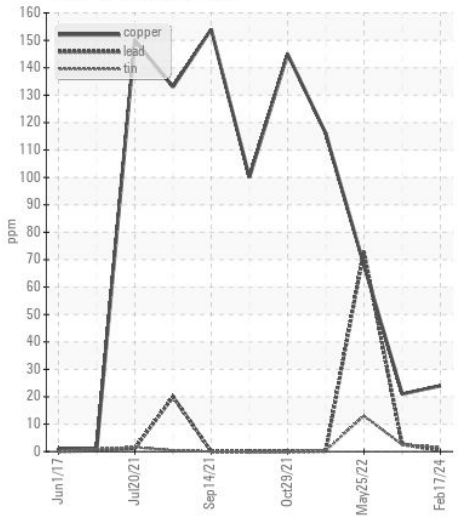
Ferrous Alloys



Viscosity @ 100°C

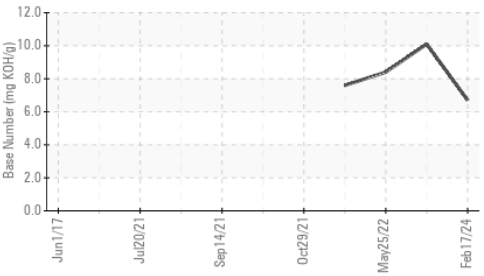


Non-ferrous Metals

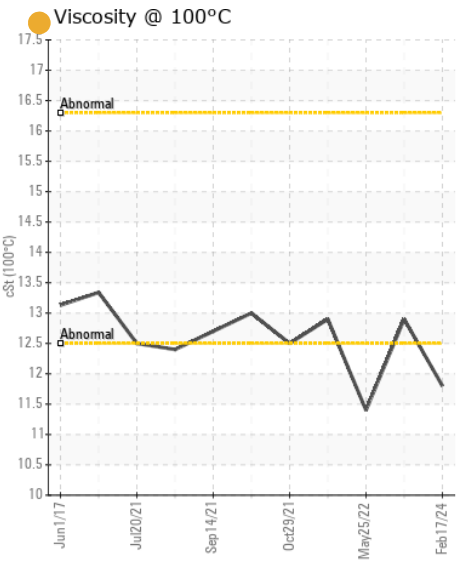


Fuel Dilution

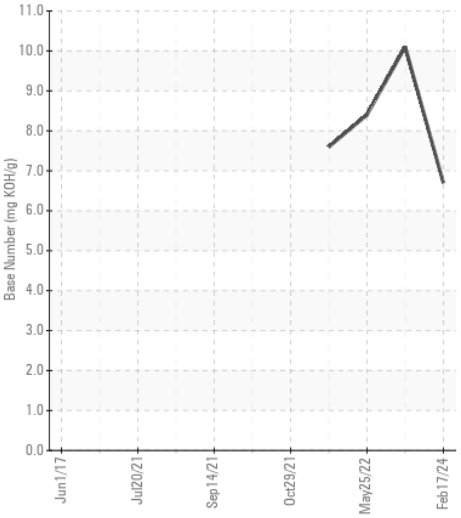
Base Number



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0243739 **Received** : 29 Feb 2024
Lab Number : 06105064 **Tested** : 05 Mar 2024
Unique Number : 10903294 **Diagnosed** : 05 Mar 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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)

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