



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR LH40M 112208-1215**

Component  
**Front Left Wheel Hub**

Fluid  
**PETRO CANADA TRAXON SYNTHETIC 75W90 (--- GAL)**

### RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.  
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0278765</b>	LH0256581	LH0193030
Sample Date		Client Info		<b>22 Feb 2024</b>	22 Mar 2023	13 Jul 2021
Machine Age	hrs	Client Info		<b>12935</b>	11044	6336
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>None</b>	None	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>650	<b>43</b>	66	45
Chromium	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	<b>2</b>	1	<1
Lead	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>60	<b>18</b>	18	22
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	VLITE	LIGHT
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

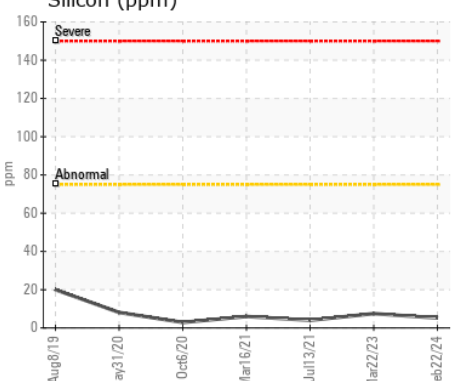
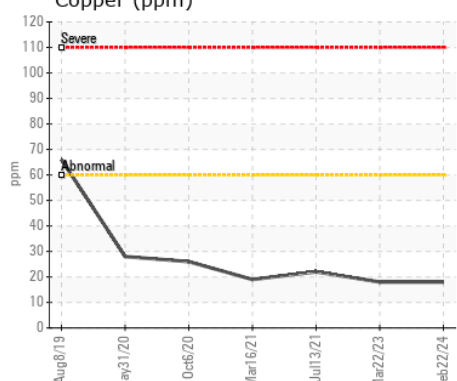
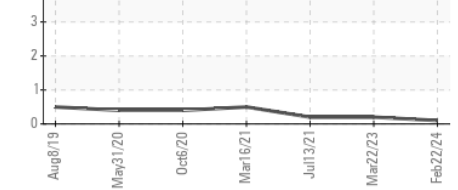
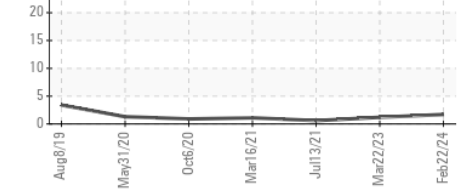
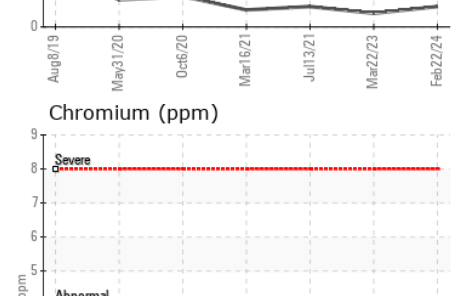
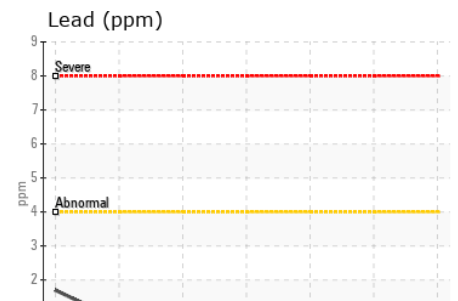
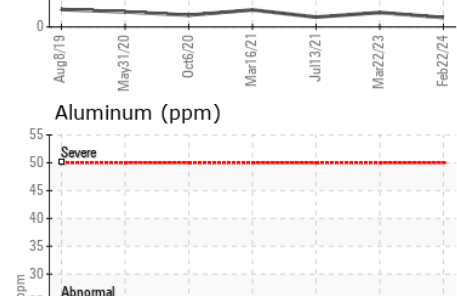
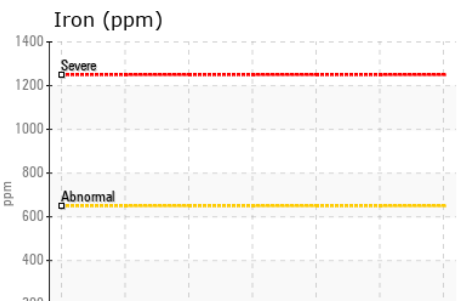
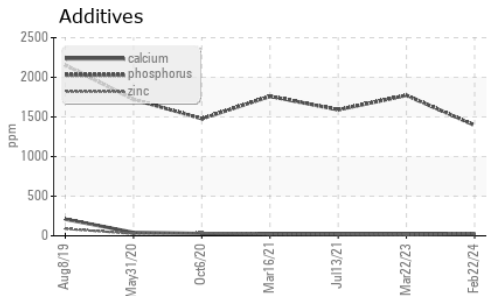
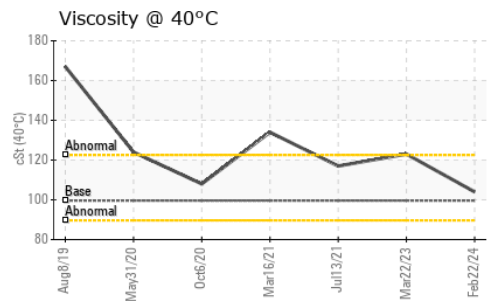
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	<b>5</b>	8	4
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	1	2
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	VLITE	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

Additive levels indicate the addition of a different brand, or type of oil.  
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>3</b>	4	6
Boron	ppm	ASTM D5185(m)	328	<b>260</b>	164	185
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	1
Magnesium	ppm	ASTM D5185(m)	1	<b>2</b>	1	1
Calcium	ppm	ASTM D5185(m)	7	<b>23</b>	17	20
Phosphorus	ppm	ASTM D5185(m)	1145	<b>1395</b>	1773	1591
Zinc	ppm	ASTM D5185(m)	3	<b>28</b>	13	20
Sulfur	ppm	ASTM D5185(m)	17909	<b>21724</b>	24517	22216
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	<b>104</b>	123	117



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0278765 **Received** : 01 Mar 2024  
**Lab Number** : 02619331 **Tested** : 01 Mar 2024  
**Unique Number** : 5736441 **Diagnosed** : 01 Mar 2024 - Wes Davis  
**Test Package** : MOB 1

**KIMCO STEEL SALES LTD.**  
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 KINGSTON, ON  
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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.