



# LIEBHERR

## OIL ANALYSIS REPORT

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



Area  
**(360376)**  
Machine Id  
**LIEBHERR LH40M 134365-1215**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA SUPREME 5W30 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0281347</b>	LH0276895	LH0193114
Sample Date		Client Info		<b>18 Jan 2024</b>	23 Sep 2023	30 May 2022
Machine Age	hrs	Client Info		<b>4274</b>	3785	1166
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>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>4</b>	7	5
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	<b>3</b>	1	2
Lead	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	<1	9
Copper	ppm	ASTM D5185(m)	>125	<b>2</b>	4	263
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

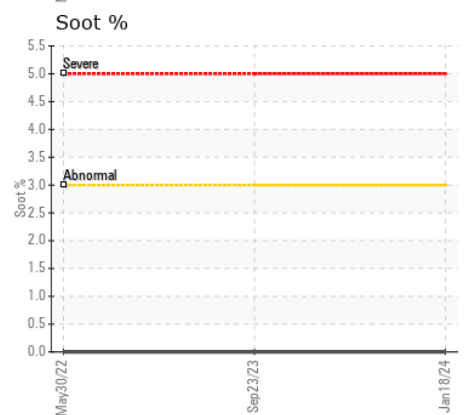
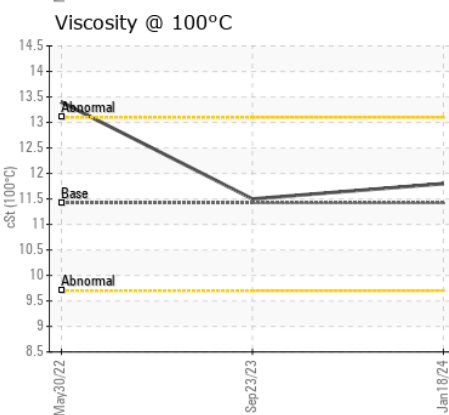
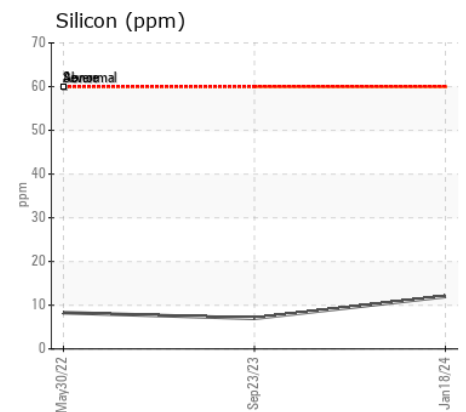
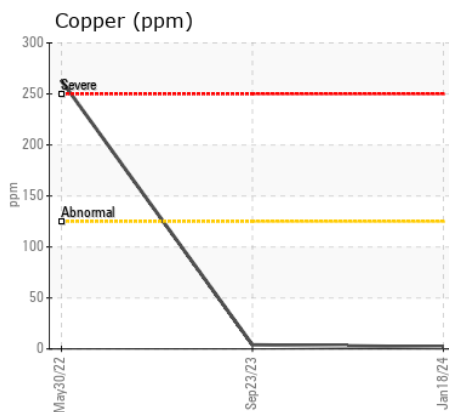
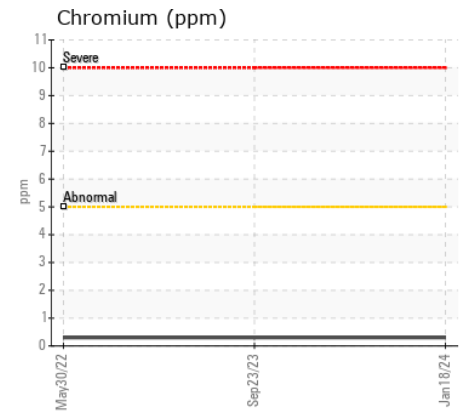
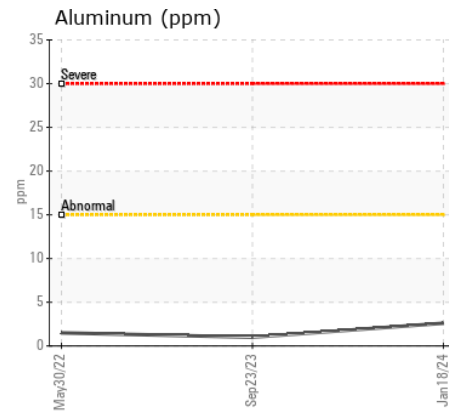
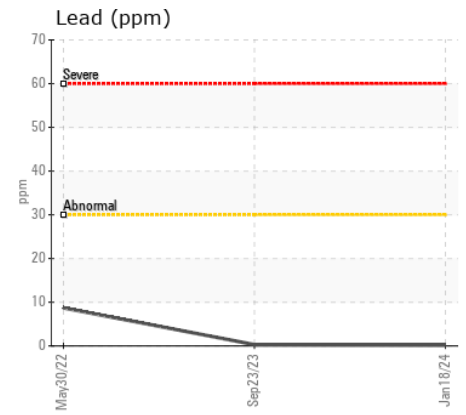
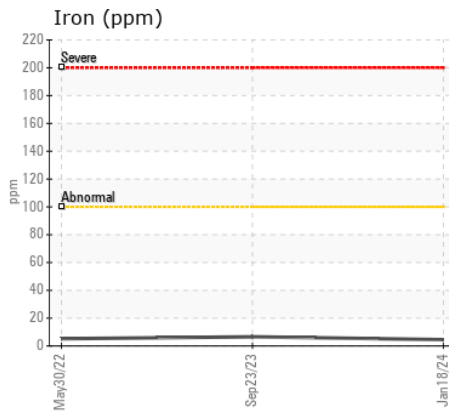
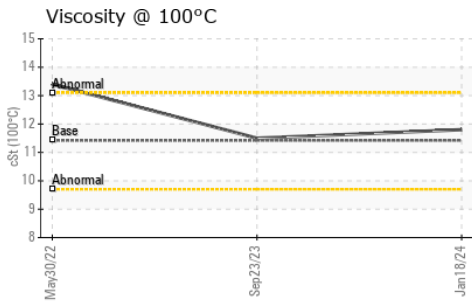
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>12</b>	7	8
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	<1	4
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</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.9</b>	10.8	8.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.3</b>	23.2	25.2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>4</b>	5	3
Boron	ppm	ASTM D5185(m)	186	<b>33</b>	22	117
Barium	ppm	ASTM D5185(m)	<1	<b>0</b>	<1	3
Molybdenum	ppm	ASTM D5185(m)	79	<b>55</b>	63	4
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	578	<b>1081</b>	1108	156
Calcium	ppm	ASTM D5185(m)	1002	<b>807</b>	843	1930
Phosphorus	ppm	ASTM D5185(m)	745	<b>1020</b>	994	937
Zinc	ppm	ASTM D5185(m)	837	<b>1153</b>	1207	1113
Sulfur	ppm	ASTM D5185(m)	2502	<b>2934</b>	2710	2573
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.2</b>	24.5	21.4
Visc @ 100°C	cSt	ASTM D7279(m)	11.42	<b>11.8</b>	11.5	13.4



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0281347 **Received** : 01 Mar 2024  
**Lab Number** : 02619185 **Tested** : 01 Mar 2024  
**Unique Number** : 5736295 **Diagnosed** : 01 Mar 2024 - Wes Davis  
**Test Package** : MOB 1

**American Iron and Metal**  
 997 CARPIN BEACH RD  
 SAULT ST MARIE, ON  
 CA P6A 6K4  
 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.

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F: