



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH18M 133780-1840**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON UHP 5W30 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH</b>	LH	LH0261199
Sample Date		Client Info		<b>21 Apr 2024</b>	12 Dec 2023	01 Sep 2023
Machine Age	hrs	Client Info		<b>2000</b>	3571	2973
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>Changed</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>12</b>	13	15
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>15	<b>2</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>125	<b>1</b>	2	3
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

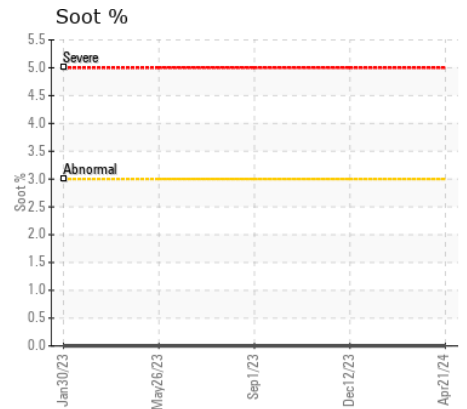
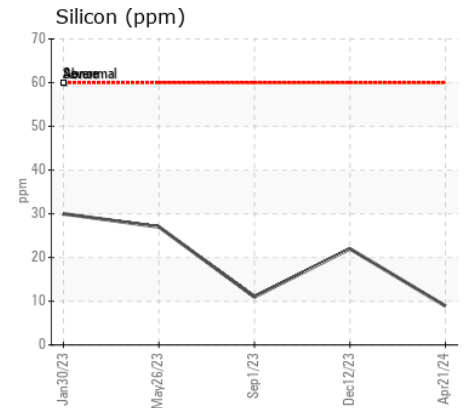
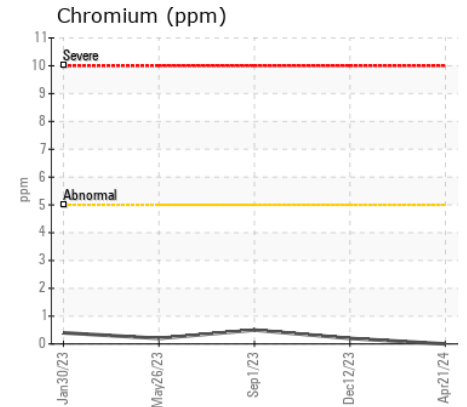
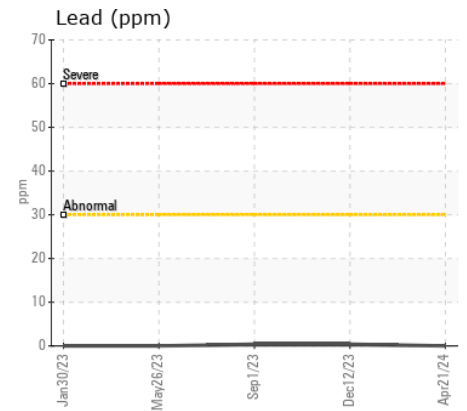
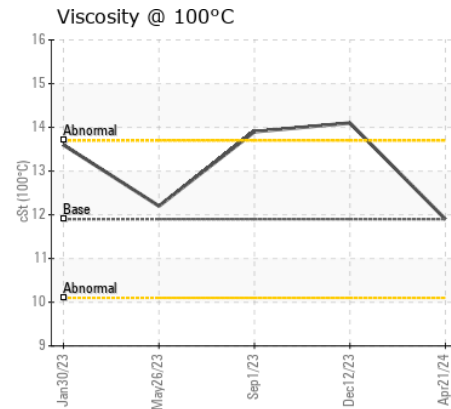
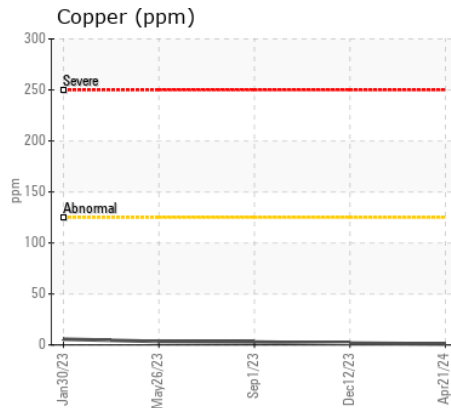
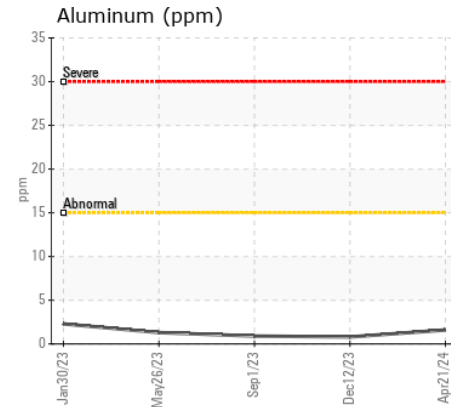
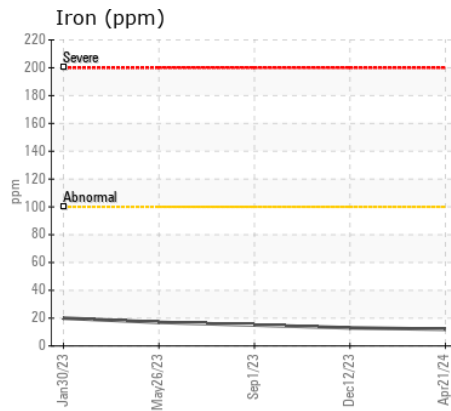
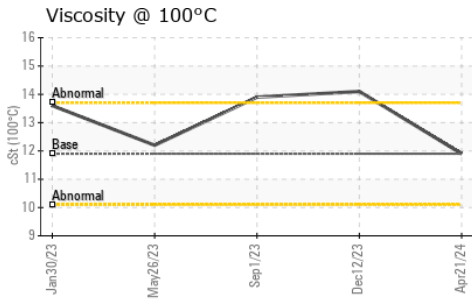
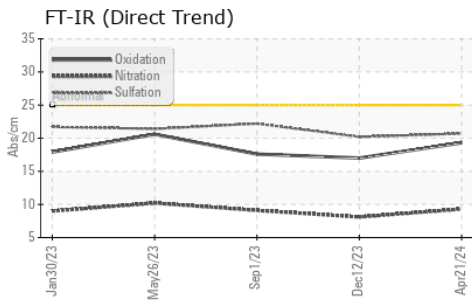
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>9</b>	22	11
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
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>9.3</b>	8.1	9.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.7</b>	20.2	22.2
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>	2	3
Boron	ppm	ASTM D5185(m)	0	<b>44</b>	2	5
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	64	<b>63</b>	65	63
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1160	<b>1154</b>	1053	1047
Calcium	ppm	ASTM D5185(m)	820	<b>883</b>	1159	1181
Phosphorus	ppm	ASTM D5185(m)	1160	<b>1036</b>	1060	1126
Zinc	ppm	ASTM D5185(m)	1260	<b>1255</b>	1295	1306
Sulfur	ppm	ASTM D5185(m)	3000	<b>2757</b>	2587	2625
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>19.3</b>	17.0	17.6
Visc @ 100°C	cSt	ASTM D7279(m)	11.9	<b>11.9</b>	14.1	13.9



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH  
**Lab Number** : 02630508  
**Unique Number** : 5763640  
**Test Package** : MOB 1  
**Received** : 22 Apr 2024  
**Tested** : 22 Apr 2024  
**Diagnosed** : 22 Apr 2024 - Kevin Marson

**SERVICES SANITAIRES ST-ANTOINE INC**  
 16600 RTE SIR WILFRID-LAURIER  
 MIRABEL, QC  
 CA J7J 2G3  
 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: