



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area  
**(360382)**  
Machine Id  
**LIEBHERR LH60C 119564-1528**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA 10W40 (44 LTR)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0286858</b>	LH0276279	LH0278912
Sample Date		Client Info		<b>03 May 2024</b>	18 Apr 2024	18 Jan 2024
Machine Age	hrs	Client Info		<b>4567</b>	4475	4002
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>Not Chngd</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

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

### CONTAMINATION

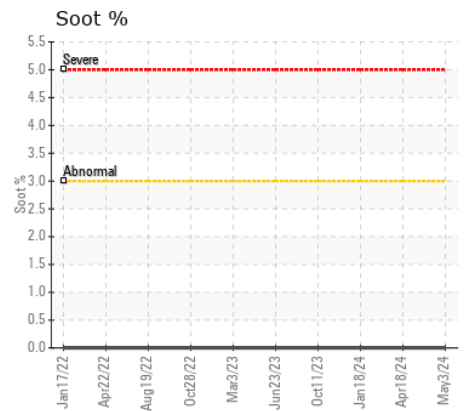
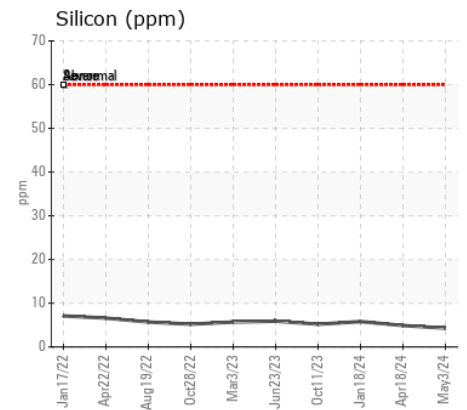
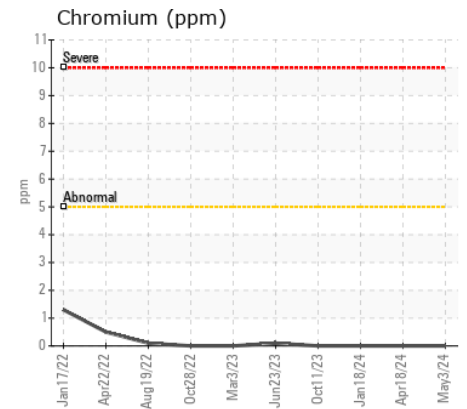
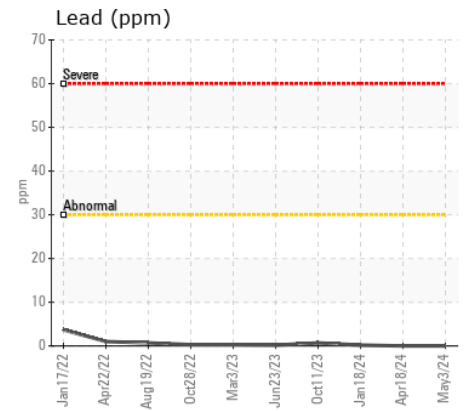
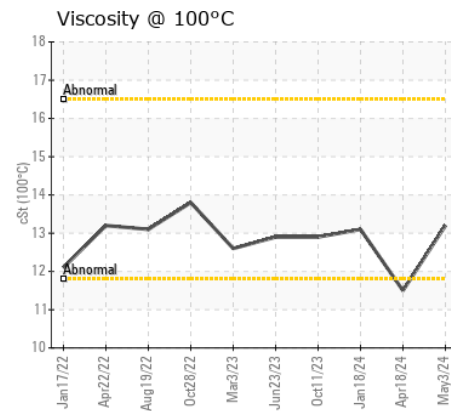
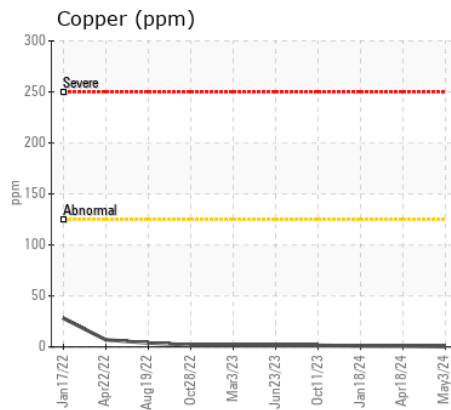
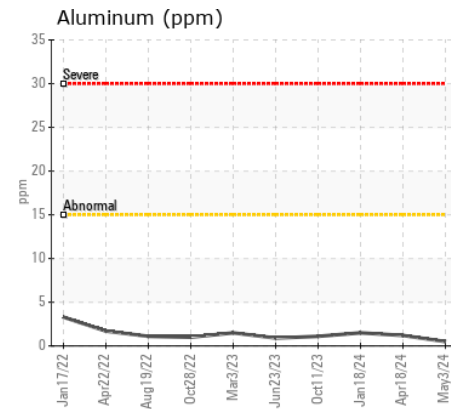
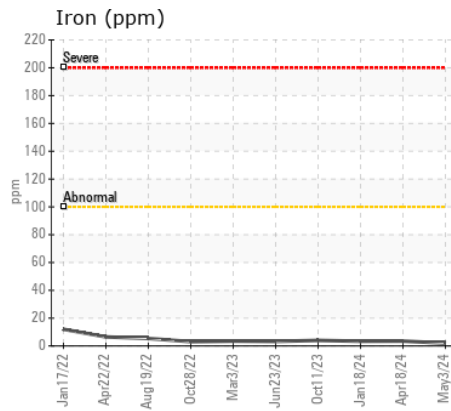
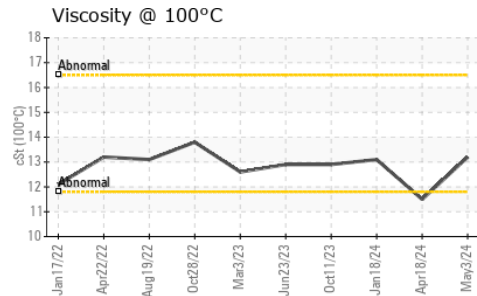
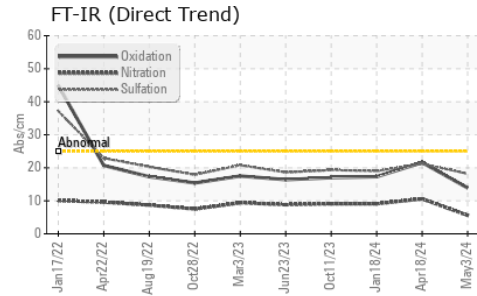
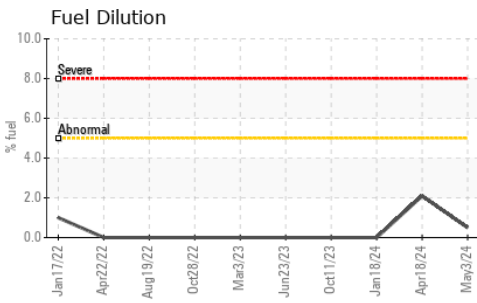
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>4</b>	5	6
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Fuel	%	ASTM D7593*	>5	<b>0.5</b>	▲ 2.1	<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>5.6</b>	10.6	9.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.2</b>	21.2	19.0
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)	>20	<b>1</b>	4	1
Boron	ppm	ASTM D5185(m)		<b>3</b>	27	1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>54</b>	57	58
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>919</b>	▲ 1111	966
Calcium	ppm	ASTM D5185(m)		<b>962</b>	▲ 862	1074
Phosphorus	ppm	ASTM D5185(m)		<b>978</b>	1000	1026
Zinc	ppm	ASTM D5185(m)		<b>1140</b>	1219	1196
Sulfur	ppm	ASTM D5185(m)		<b>2533</b>	2672	2751
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.9</b>	21.6	17.3
Visc @ 100°C	cSt	ASTM D7279(m)		<b>13.2</b>	▲ 11.5	13.1



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0286858 **Received** : 06 May 2024  
**Lab Number** : 02633416 **Tested** : 07 May 2024  
**Unique Number** : 5774569 **Diagnosed** : 07 May 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )

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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