



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH80C 106718**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA 10W40 (40 LTR)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0284965</b>	LH0270354	LH0251351
Sample Date		Client Info		<b>14 Feb 2024</b>	24 Jul 2023	22 Mar 2023
Machine Age	hrs	Client Info		<b>11505</b>	10592	10001
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>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

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

### CONTAMINATION

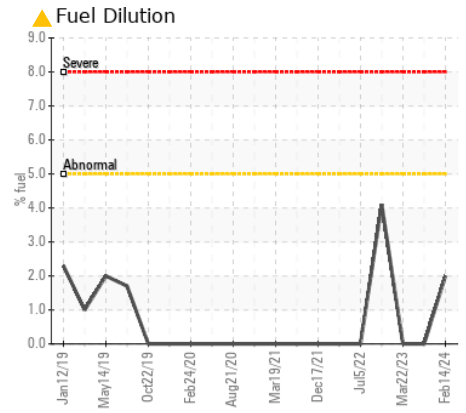
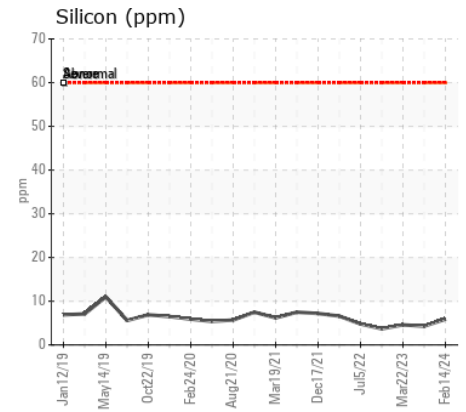
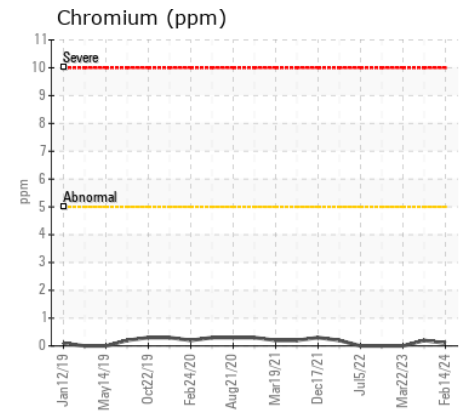
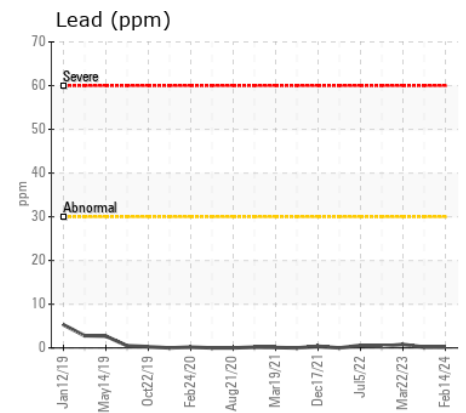
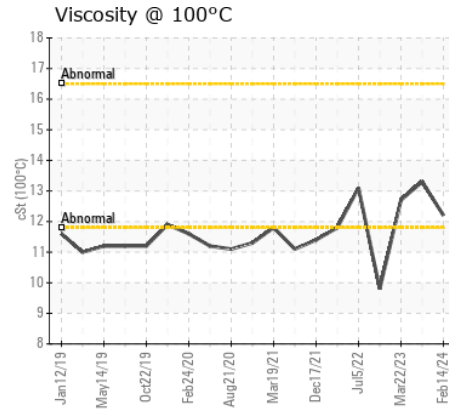
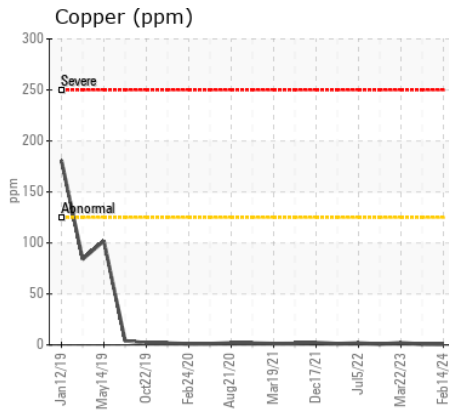
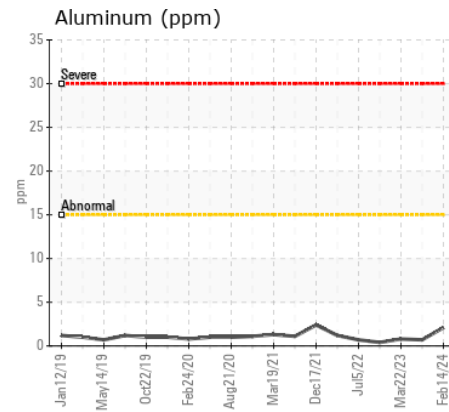
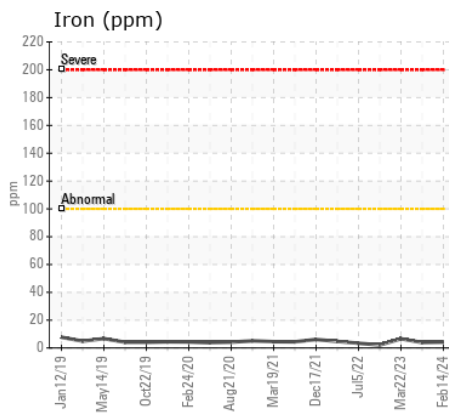
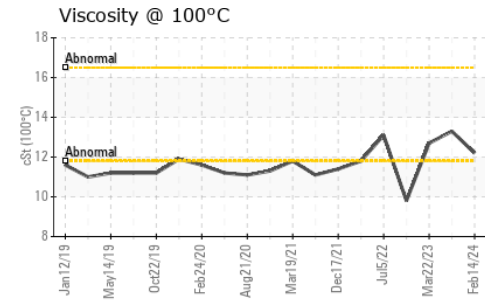
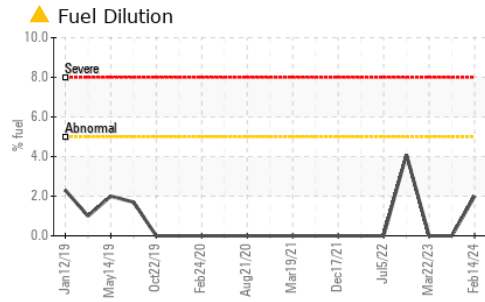
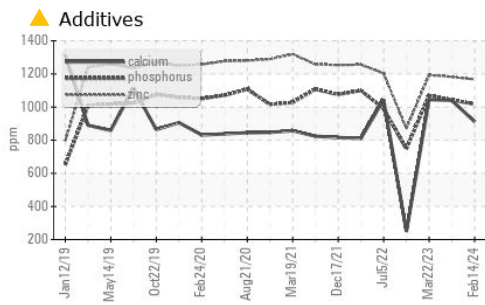
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>6</b>	4	5
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	0	<1
Fuel	%	ASTM D7593*	>5	<b>▲ 2</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>	8.0	9.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.7</b>	19.0	24.2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

Calcium ppm levels are abnormally low.

Sodium	ppm	ASTM D5185(m)	>20	<b>3</b>	1	2
Boron	ppm	ASTM D5185(m)		<b>26</b>	3	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>57</b>	55	55
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>1040</b>	963	916
Calcium	ppm	ASTM D5185(m)		<b>▲ 912</b>	1039	1045
Phosphorus	ppm	ASTM D5185(m)		<b>1017</b>	1043	1070
Zinc	ppm	ASTM D5185(m)		<b>1167</b>	1182	1193
Sulfur	ppm	ASTM D5185(m)		<b>2831</b>	2548	2526
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.6</b>	15.9	21.0
Visc @ 100°C	cSt	ASTM D7279(m)		<b>12.2</b>	13.3	12.7



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0284965 **Received** : 16 Feb 2024  
**Lab Number** : 02616204 **Tested** : 20 Feb 2024  
**Unique Number** : 5733314 **Diagnosed** : 20 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: FUELDILUTION, PercentFuel )

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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.