



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area  
**[593756]**  
Machine Id  
**LIEBHERR HS8100 184996**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA 10W30 (55 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0284978</b>	LH0256990	LH0251623
Sample Date		Client Info		<b>26 Jan 2024</b>	07 Sep 2023	13 Jan 2023
Machine Age	hrs	Client Info		<b>12043</b>	11071	9355
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>N/A</b>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>6</b>	7	9
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	<b>1</b>	1	2
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	<1	3
Copper	ppm	ASTM D5185(m)	>125	<b>1</b>	2	4
Tin	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

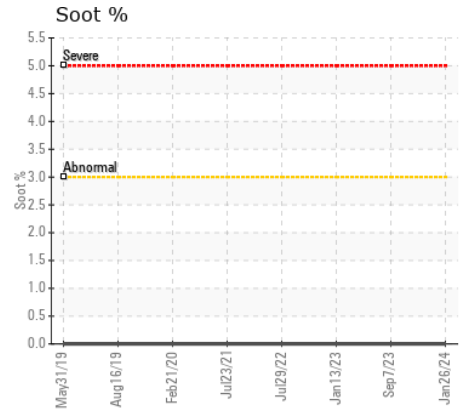
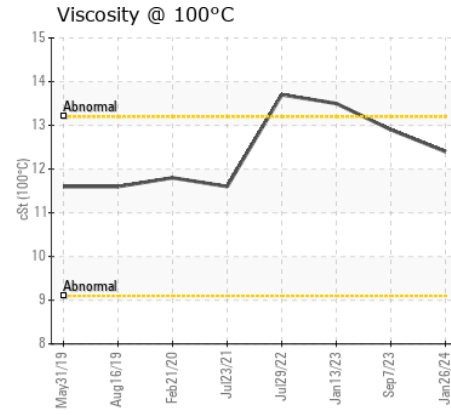
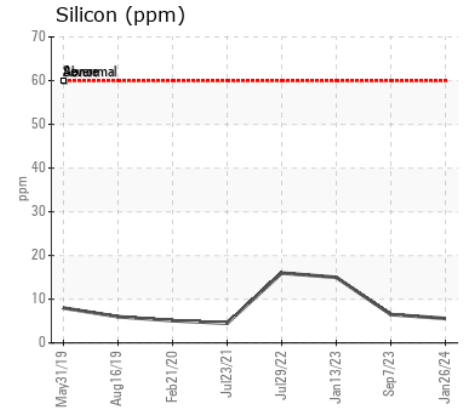
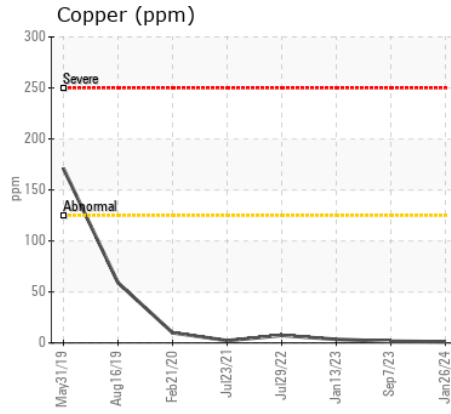
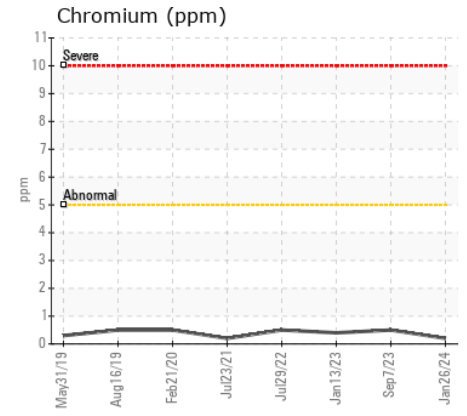
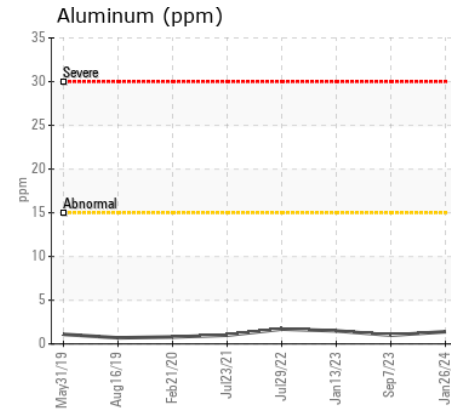
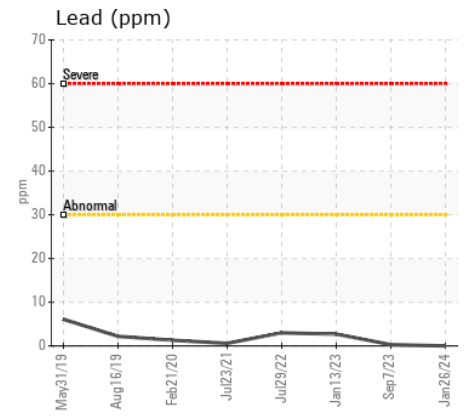
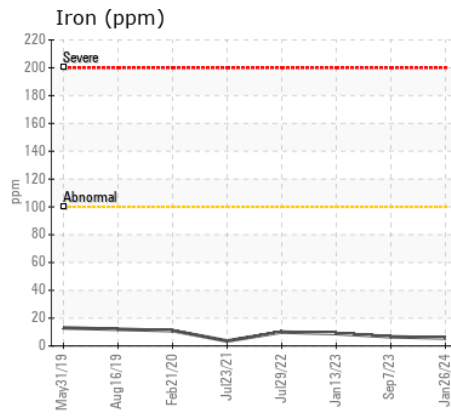
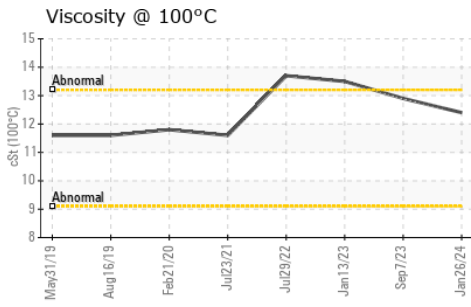
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>6</b>	6	15
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	5	63
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>	0.0	0.0
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.0</b>	11.7	15.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.9</b>	24.7	28.3
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>44</b>	151	973
Boron	ppm	ASTM D5185(m)		<b>27</b>	20	22
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>64</b>	63	78
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>1144</b>	1199	990
Calcium	ppm	ASTM D5185(m)		<b>849</b>	879	995
Phosphorus	ppm	ASTM D5185(m)		<b>1001</b>	1108	895
Zinc	ppm	ASTM D5185(m)		<b>1206</b>	1294	1124
Sulfur	ppm	ASTM D5185(m)		<b>2824</b>	2739	2733
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>27.0</b>	26.5	31.4
Visc @ 100°C	cSt	ASTM D7279(m)		<b>12.4</b>	12.9	13.5



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0284978  
**Lab Number** : 02619845  
**Unique Number** : 5736955  
**Test Package** : MOB 1  
**Received** : 05 Mar 2024  
**Tested** : 05 Mar 2024  
**Diagnosed** : 06 Mar 2024 - Kevin Marson

**HIGGS & HIGGS**  
 RR # 4  
 ST THOMAS, ON  
 CA N5P 3S8  
 Contact: Bernie Higgs

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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