



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR L586 068244**  
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>LH0278467</b>	LH0224308	LH0278516
Sample Date		Client Info		<b>22 Mar 2024</b>	21 Feb 2024	22 Dec 2023
Machine Age	hrs	Client Info		<b>8517</b>	8026	7142
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>3</b>	4	5
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
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>&lt;1</b>	1	2
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>125	<b>2</b>	3	6
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

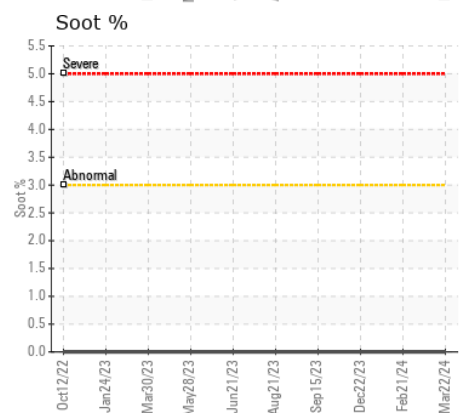
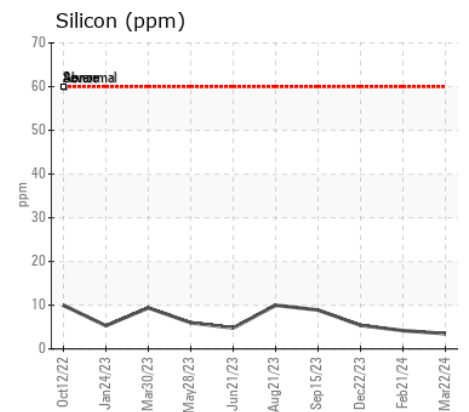
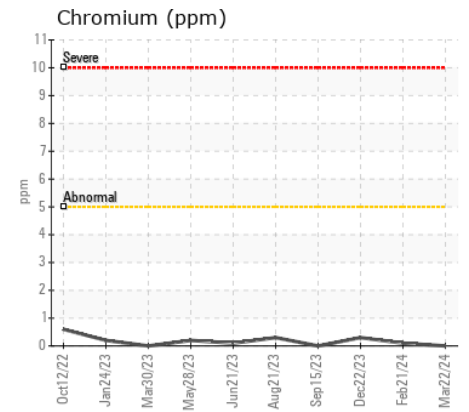
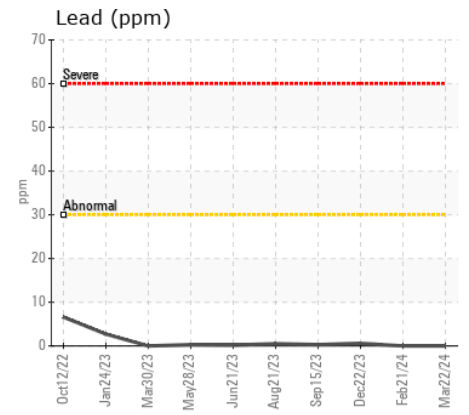
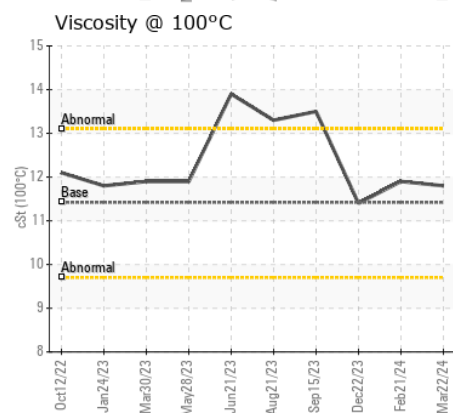
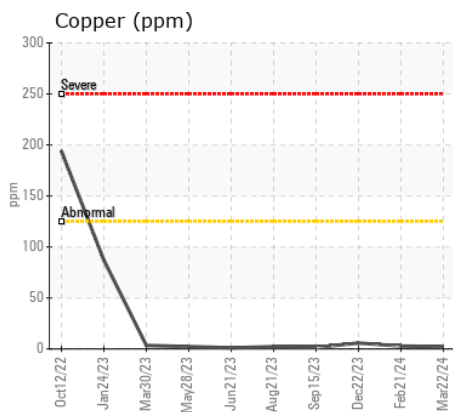
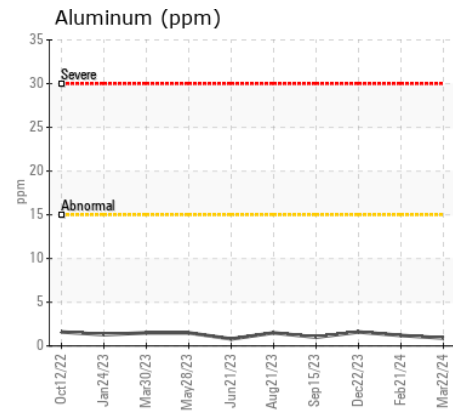
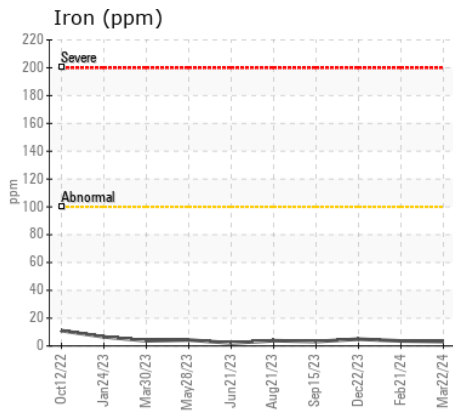
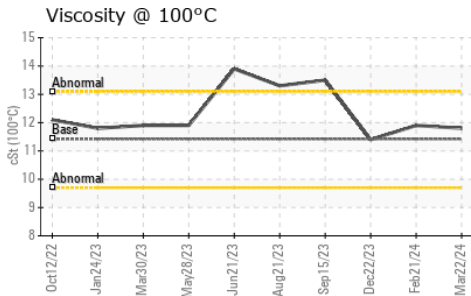
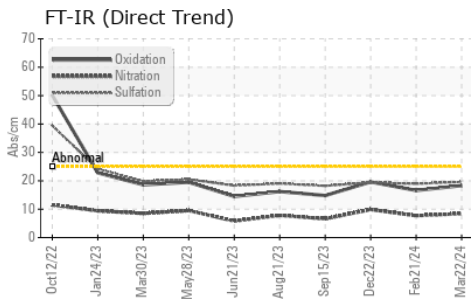
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>4</b>	4	5
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	1
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>8.4</b>	7.7	9.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.6</b>	18.9	19.4
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>	4	3
Boron	ppm	ASTM D5185(m)	186	<b>43</b>	27	23
Barium	ppm	ASTM D5185(m)	<1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	79	<b>60</b>	57	57
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	578	<b>1108</b>	1050	1042
Calcium	ppm	ASTM D5185(m)	1002	<b>816</b>	870	867
Phosphorus	ppm	ASTM D5185(m)	745	<b>1006</b>	1005	1031
Zinc	ppm	ASTM D5185(m)	837	<b>1216</b>	1179	1168
Sulfur	ppm	ASTM D5185(m)	2502	<b>2770</b>	2829	3161
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.3</b>	16.6	19.6
Visc @ 100°C	cSt	ASTM D7279(m)	11.42	<b>11.8</b>	11.9	11.4



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0278467  
**Lab Number** : 02627212  
**Unique Number** : 5760344  
**Test Package** : MOB 1

**Received** : 08 Apr 2024  
**Tested** : 08 Apr 2024  
**Diagnosed** : 08 Apr 2024 - Wes Davis

**Gerdau - Mandak Metal Processors Ltd.,**  
 1 Railway St., P.O. Box 334  
 Selkirk, MB  
 CA R1A 2B3  
 Contact: Santiago Giraldo  
 santiago.giraldo@gerdau.com

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.

T:  
 F: (204)482-8241