



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**096750-1204**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA 10W40 (30 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0285142</b>	LH0274880	LH0216229
Sample Date		Client Info		<b>05 Feb 2024</b>	31 Oct 2023	02 May 2023
Machine Age	hrs	Client Info		<b>10945</b>	10469	9977
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>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>27</b>	30	27
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	2
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	<b>11</b>	9	11
Lead	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>125	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

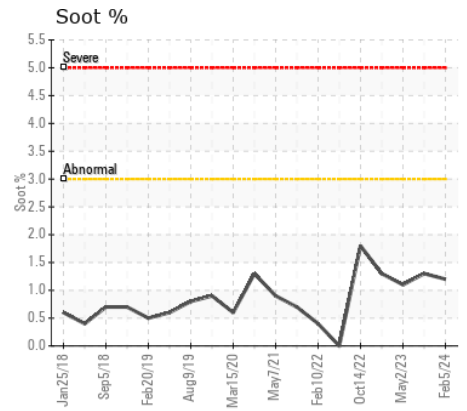
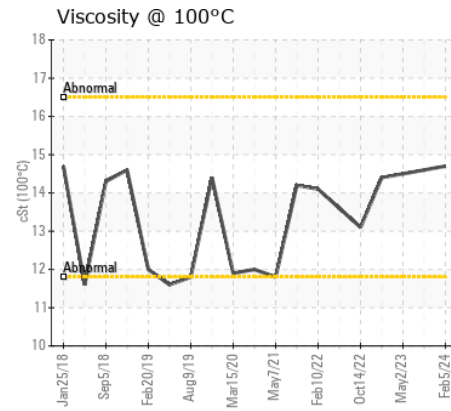
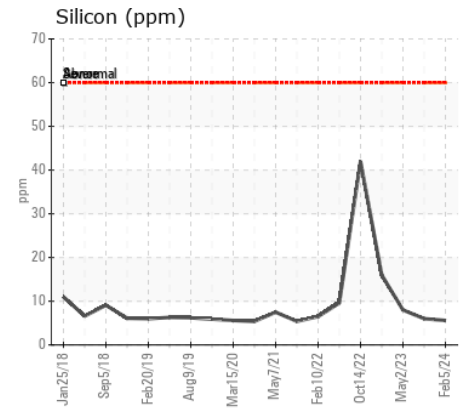
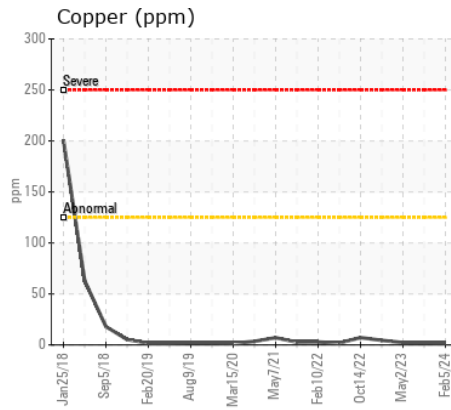
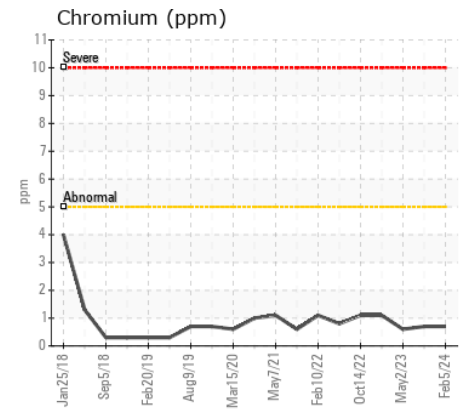
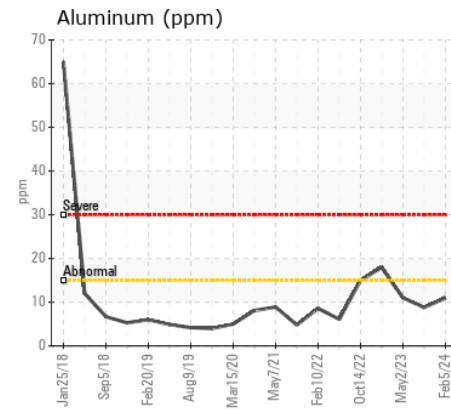
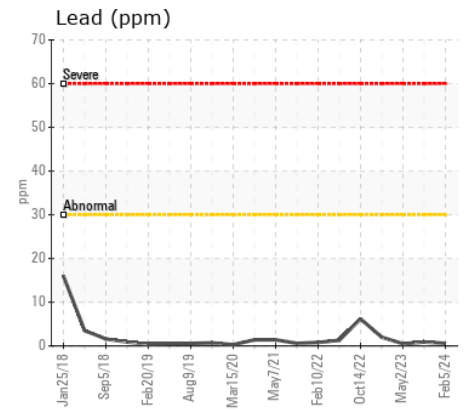
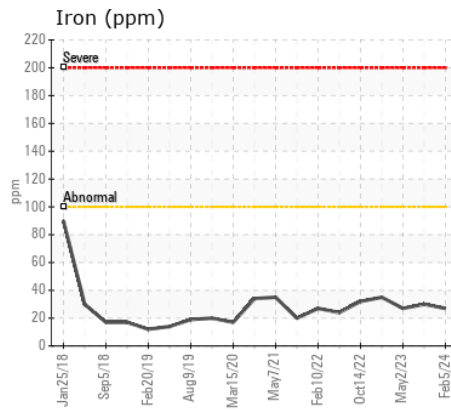
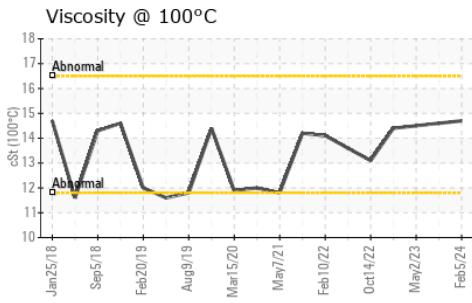
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>6</b>	6	8
Potassium	ppm	ASTM D5185(m)	>20	<b>9</b>	21	▲ 76
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>1.2</b>	1.3	1.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.3</b>	10.4	9.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.7</b>	21.5	20.9
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>16</b>	37	129
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	2
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>62</b>	68	69
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>985</b>	1060	978
Calcium	ppm	ASTM D5185(m)		<b>1108</b>	1159	1135
Phosphorus	ppm	ASTM D5185(m)		<b>1035</b>	1101	1112
Zinc	ppm	ASTM D5185(m)		<b>1217</b>	1340	1234
Sulfur	ppm	ASTM D5185(m)		<b>2704</b>	2732	2680
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.3</b>	16.5	15.5
Visc @ 100°C	cSt	ASTM D7279(m)		<b>14.7</b>	14.6	14.5



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0285142  
**Lab Number** : 02617364  
**Unique Number** : 5734474  
**Test Package** : MOB 1  
**Received** : 22 Feb 2024  
**Tested** : 22 Feb 2024  
**Diagnosed** : 22 Feb 2024 - Wes Davis

**American Iron and Metal**  
 120 Bentley Avenue  
 Ottawa, ON  
 CA K2E 6T9  
 Contact: Yvon Lalonde

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: (819)230-7247  
 F: