



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH50M 068902-1203**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0115738</b>	LH0079638	LH0079631
Sample Date		Client Info		<b>29 Jan 2024</b>	03 Jan 2015	07 Mar 2014
Machine Age	hrs	Client Info		<b>24000</b>	2000	480
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>	N/A	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>	3	44
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	1
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>15	<b>2</b>	3	20
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	<1	18
Copper	ppm	ASTM D5185(m)	>125	<b>&lt;1</b>	2	317
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	3
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

### CONTAMINATION

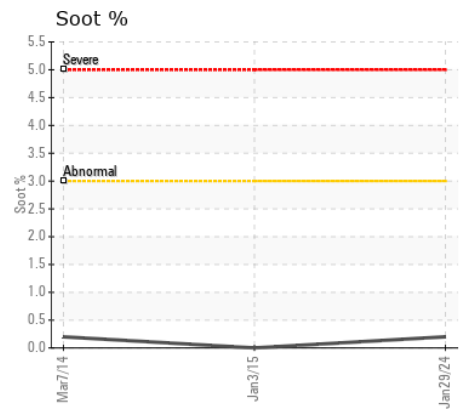
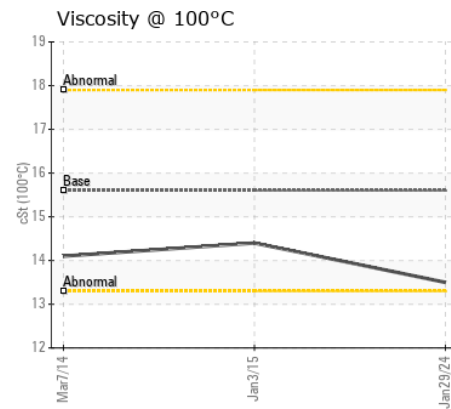
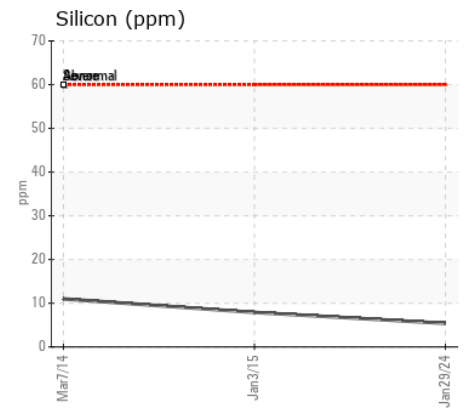
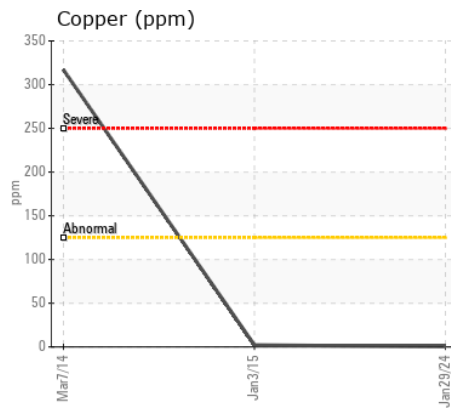
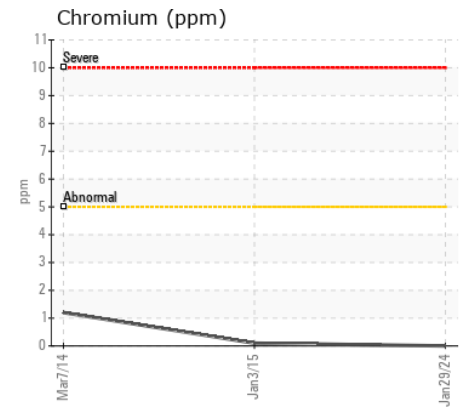
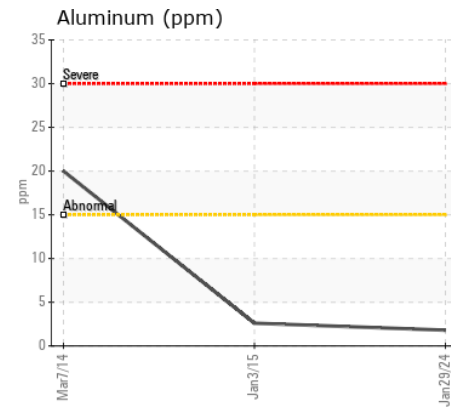
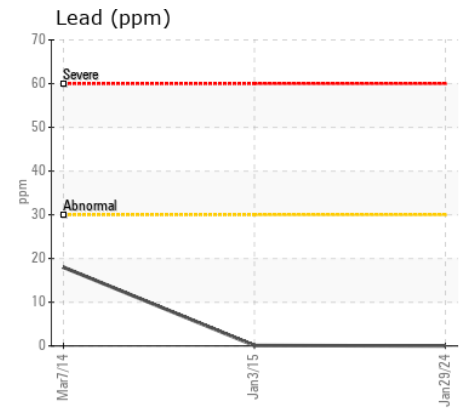
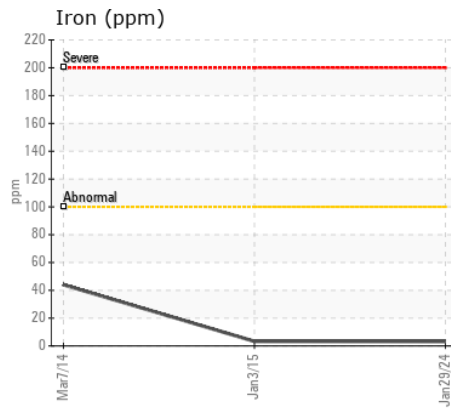
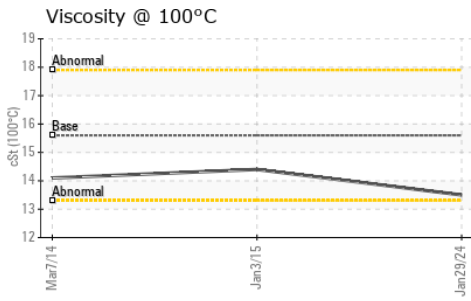
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>5</b>	8	11
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	3
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>0.2</b>	0	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>5.7</b>	5.7	12.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.9</b>	20.7	25.2
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
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>&lt;1</b>	1	<1
Boron	ppm	ASTM D5185(m)	0	<b>12</b>	68	10
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	29
Molybdenum	ppm	ASTM D5185(m)	60	<b>57</b>	<1	<1
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	2
Magnesium	ppm	ASTM D5185(m)	1010	<b>871</b>	10	18
Calcium	ppm	ASTM D5185(m)	1070	<b>1075</b>	1971	2445
Phosphorus	ppm	ASTM D5185(m)	1150	<b>973</b>	943	768
Zinc	ppm	ASTM D5185(m)	1270	<b>1105</b>	1100	945
Sulfur	ppm	ASTM D5185(m)	2060	<b>2758</b>	3322	2270
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.5</b>	14.2	23.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>13.5</b>	14.4	14.1



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0115738 **Received** : 20 Feb 2024  
**Lab Number** : 02616544 **Tested** : 20 Feb 2024  
**Unique Number** : 5733654 **Diagnosed** : 20 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**West Fraser Mills**  
 P.O. BOX 97  
 100 Mile House, BC  
 CA V0K 2Z0  
 Contact: JIM (MAINTENANCE)

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: (250)395-8200  
 F: