



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[606582]
Machine Id
LIEBHERR LH60C 126868-1528
Component
Diesel Engine
Fluid
PETRO CANADA 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0289669	LH0274850	LH0251655
Sample Date		Client Info		16 Apr 2024	27 Sep 2023	16 May 2023
Machine Age	hrs	Client Info		0	4769	4289
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	6	5	5
Chromium	ppm	ASTM D5185(m)	>5	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>5	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	2	1	2
Lead	ppm	ASTM D5185(m)	>30	<1	3	0
Copper	ppm	ASTM D5185(m)	>125	18	15	1
Tin	ppm	ASTM D5185(m)	>5	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

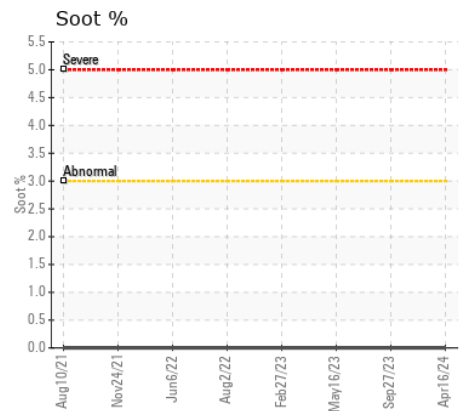
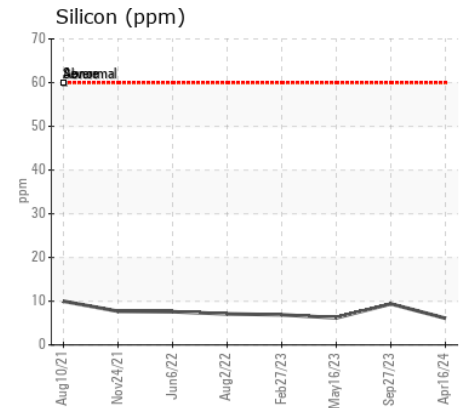
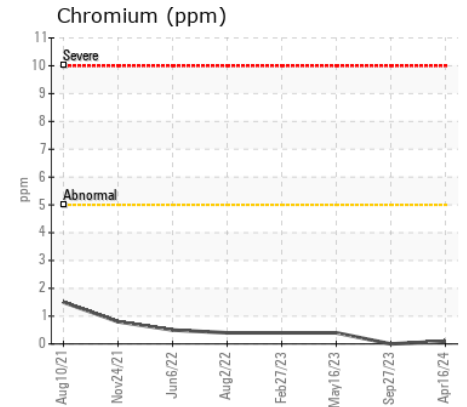
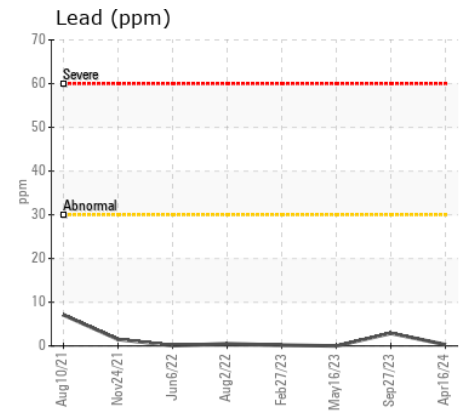
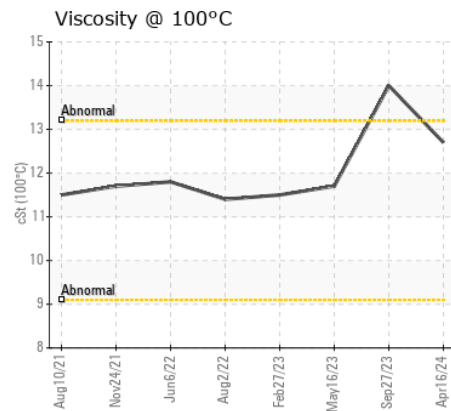
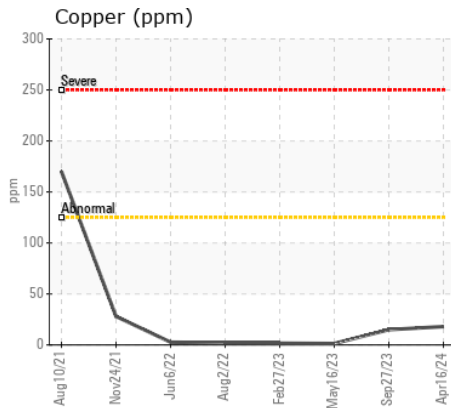
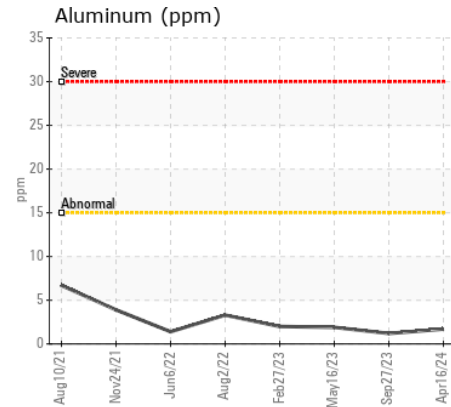
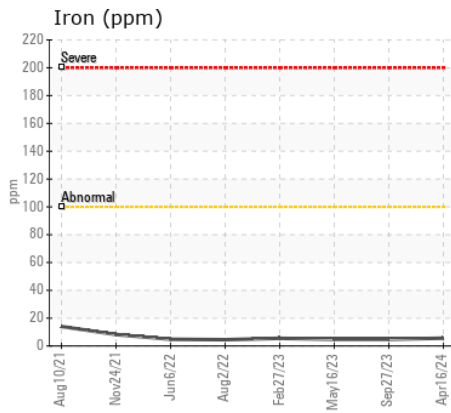
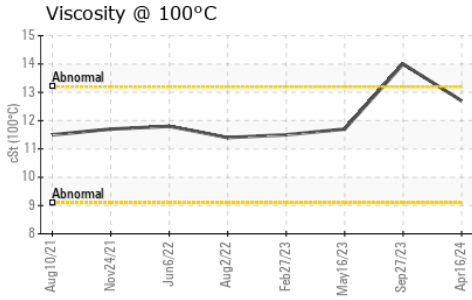
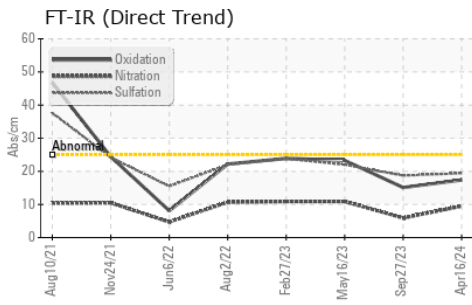
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	6	9	6
Potassium	ppm	ASTM D5185(m)	>20	3	8	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	9.5	5.9	10.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.4	18.7	22.0
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	4	4
Boron	ppm	ASTM D5185(m)		4	32	27
Barium	ppm	ASTM D5185(m)		5	23	0
Molybdenum	ppm	ASTM D5185(m)		55	45	60
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		921	909	1103
Calcium	ppm	ASTM D5185(m)		1164	1150	869
Phosphorus	ppm	ASTM D5185(m)		961	970	1091
Zinc	ppm	ASTM D5185(m)		1139	1110	1219
Sulfur	ppm	ASTM D5185(m)		2409	2806	2796
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.4	15.1	23.3
Visc @ 100°C	cSt	ASTM D7279(m)		12.7	14.0	11.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0289669 **Received** : 17 Apr 2024
Lab Number : 02629537 **Tested** : 17 Apr 2024
Unique Number : 5762669 **Diagnosed** : 17 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Visual)

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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