WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL



Machine Id **LIEBHERR LH30M 155056**

Diesel Engine

PETRO CANADA 10W40 (31 L	. 1 1 1)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		LH0288115		
	Sample Date		Client Info		22 May 2024		
	Machine Age	hrs	Client Info		552		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185(m)	>66	6		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185(m)	>4	0		
	Nickel	ppm	ASTM D5185(m)	>4	0		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)	>3	0		
	Aluminum	ppm	ASTM D5185(m)	>8	<1		
	Lead	ppm	ASTM D5185(m)	>10	<1		
	Copper	ppm	ASTM D5185(m)	>74	16		
	Tin	ppm	ASTM D5185(m)	>4	0		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>15	6		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	<1		
	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	ASTM D7844*	>3	0		
	Nitration	Abs/cm	ASTM D7624*	>20	11.3		
	Sulfation	Abs/.1mm		>30	24.8		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	VLITE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar		NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML		
<u></u>	Emulsified Water	scalar	visuai"	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)	>20	1		
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)		6		
	Barium	ppm	ASTM D5185(m)		0		
	Molybdenum	ppm	ASTM D5185(m)		64		
	Manganese	ppm	ASTM D5185(m)		<1		
	Magnesium	ppm	ASTM D5185(m)		878		
	Calcium	ppm	ASTM D5185(m)		1231		
	Phosphorus	ppm	ASTM D5185(m)		913		
	Zinc	ppm	ASTM D5185(m)		1140		
	Sulfur	ppm	ASTM D5185(m)		2287		
	Oxidation	Abs/.1mm	ASTM D7414*	>25	22.9		
	Visc @ 100°C	cSt	ASTM D7279(m)		13.1		





CALA ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : LH0288115 Lab Number : 02638372

Unique Number : 5787534

Received **Tested** Diagnosed Test Package : MOB 1 (Additional Tests: Visual)

: 29 May 2024 : 29 May 2024

: 29 May 2024 - Wes Davis

CA V2R 4H5 Contact: Service Manager

Goodies Trading Ltd.

8150 Aitken Road

Chilliwack, BC

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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