WEAR
CONTAMINATION
FLUID CONDITION

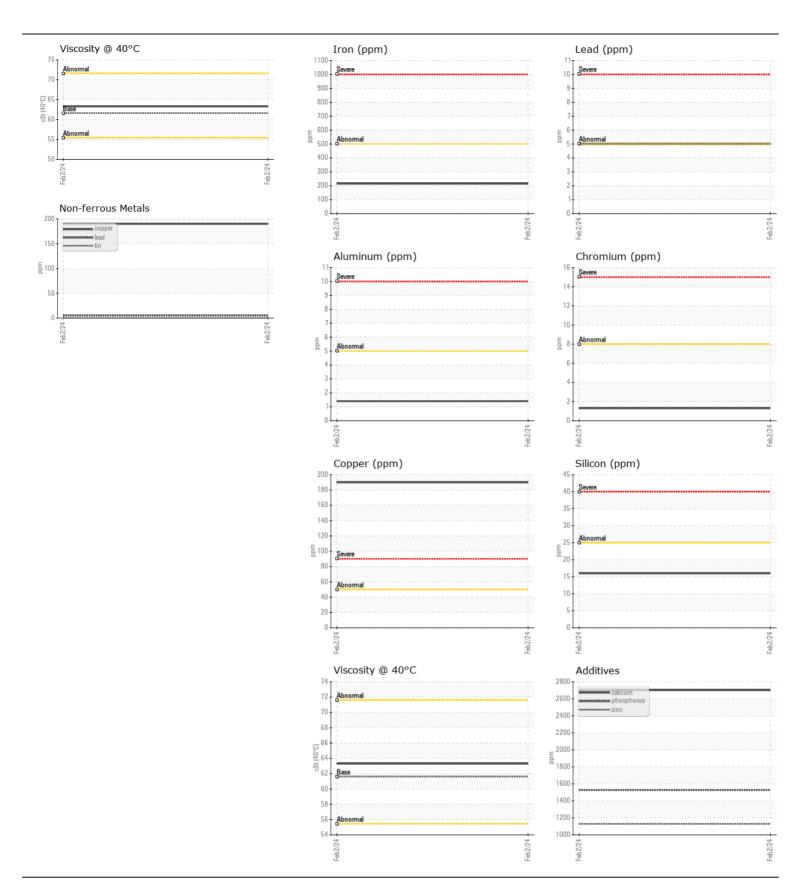
NORMAL NORMAL



LIEBHERR T60-9 022201-1709

Component Front Right Wheel Hub

LIEBHERR GEAR MF 80W ((GAL)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		LH0228244		
riesample at the flext service interval to monitor.	Sample Date		Client Info		02 Feb 2024		
	Machine Age	hrs	Client Info		1045		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185(m)	>500	215		
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>8	1		
	Nickel	ppm	ASTM D5185(m)	>5	0		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)		0		
	Aluminum	ppm	ASTM D5185(m)	>5	1		
	Lead	ppm	ASTM D5185(m)	>5	5		
	Copper	ppm	ASTM D5185(m)	>50	190		
	Tin	ppm	ASTM D5185(m)		0		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	LIGHT		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	16		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	2		
	Water		1440 14 11 1				
	vvalei		WC Method	>0.2	NEG		
	Silt	scalar	WC Method Visual*	>0.2 NONE	NEG NONE		
		scalar scalar					
	Silt		Visual*	NONE	NONE		
	Silt Debris	scalar	Visual* Visual*	NONE NONE	NONE NONE		
	Silt Debris Sand/Dirt	scalar scalar	Visual* Visual* Visual* Visual*	NONE NONE	NONE NONE		
	Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar	Visual* Visual* Visual* Visual* Visual*	NONE NONE NORML	NONE NONE NONE NORML		
FLUID CONDITION	Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar	Visual* Visual* Visual* Visual* Visual*	NONE NONE NORML NORML	NONE NONE NONE NORML		
	Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar	Visual* Visual* Visual* Visual* Visual* Visual*	NONE NONE NORML NORML	NONE NONE NORML NORML NEG		
FLUID CONDITION The condition of the oil is acceptable for the time in service.	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar scalar scalar scalar scalar ppm	Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	NONE NONE NORML NORML	NONE NONE NORML NORML NEG		
	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar scalar scalar ppm	Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 76		
	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar scalar scalar scalar ppm ppm	Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 76 <1 0 2		
	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar scalar scalar scalar scalar ppm ppm ppm	Visual* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 76 <1 0 2 12		
	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar ppm ppm ppm ppm	Visual* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 76 <1 0 2 12 2701		
	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	Visual* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 76 <1 0 2 12 2701 1528		
	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	Visual* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 76 <1 0 2 12 2701 1528 1127		
	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	Visual* Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	NONE NONE NORML NORML	NONE NONE NORML NORML NEG 1 76 <1 0 2 12 2701 1528		





CALA ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

: LH0228244 Lab Number : 02617470 Unique Number : 5734580

Received **Tested** Diagnosed

: 22 Feb 2024 - Kevin Marson Test Package : MOBCE (Additional Tests: Visual)

: 22 Feb 2024

: 22 Feb 2024

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.

ECOWASTE INDUSTRIES

4 SPRUCE ST NEW WESTMINSTER, BC CA V3L 5G6

Contact: Service Manager

T: F: