

LIEBHERR LH50 14791

Component Splitter Box

CHEVRON DELO GEAR ESI OIL 80W90 (--- GAL)

RECOMMENDATIO	'N

Resample at the next service interval to monitor.

TIO

## **WEAR**

All component wear rates are normal.

## CONTAMINATION

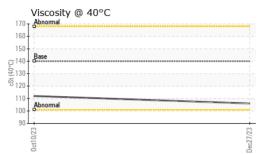
There is no indication of any contamination in the oil.

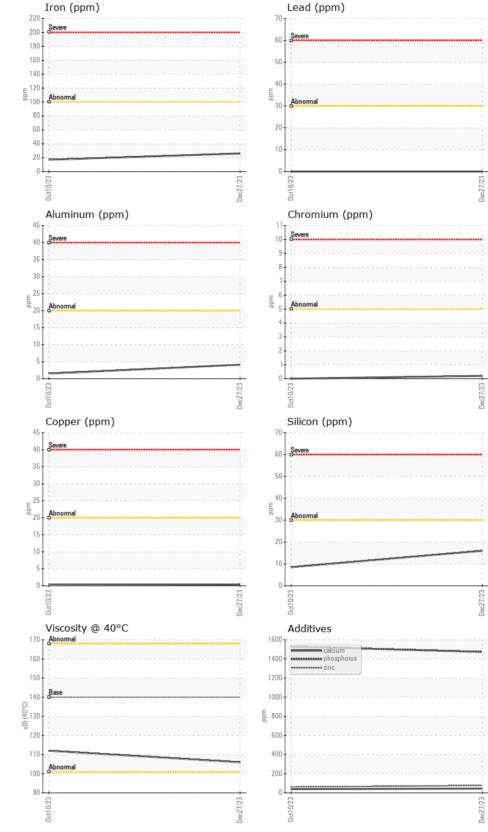
## FLUID CONDITION

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

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Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH	LH0269533	
Sample Date		Client Info		27 Dec 2023	10 Oct 2023	
Machine Age	hrs	Client Info		22000	21000	
Oil Age	hrs	Client Info		0	0	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	Changed	
Filter Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
			400		47	
Iron	ppm	ASTM D5185(m)	>100	26	17	
Chromium	ppm	ASTM D5185(m)	>5	<1	0	
Nickel	ppm	ASTM D5185(m)	>5	0	0	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)		0	<1	
Aluminum	ppm	ASTM D5185(m)	>20	4	2	
Lead	ppm	ASTM D5185(m)	>30	0	0	
Copper	ppm	ASTM D5185(m)	>20	<1	<1	
Tin	ppm	ASTM D5185(m)	>10	0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
White Metal	scalar	Visual*	NONE	NONE	NONE	
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Silicon	ppm	ASTM D5185(m)	>30	NONE 16 2	NONE 8 <1	
				16	8	
Silicon Potassium Water	ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method	>30 >20 >0.1	16 2 NEG	8 <1 NEG	
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual*	>30 >20 >0.1 NONE	16 2 NEG NONE	8 <1 NEG NONE	
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual*	>30 >20 >0.1 NONE NONE	16 2 NEG NONE NONE	8 <1 NEG NONE NONE	
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual*	>30 >20 >0.1 NONE	16 2 NEG NONE	8 <1 NEG NONE	
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NONE	16 2 NEG NONE NONE NONE	8 <1 NEG NONE NONE NONE	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NONE NORML	16 2 NEG NONE NONE NONE NORML	8 <1 NEG NONE NONE NONE NORML	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NONE NORML	16 2 NEG NONE NONE NONE NORML NORML	8 <1 NEG NONE NONE NONE NORML NORML	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NORML NORML >0.1	16 2 NEG NONE NONE NORML NORML NEG	8 <1 NEG NONE NONE NORML NORML NEG 1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar gpm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NORME NORML >0.1 >25 15	16 2 NEG NONE NONE NORML NORML NEG 1 251	8 <1 NEG NONE NONE NORML NORML NEG 1 273	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML NORML >0.1 >25 15 0	16 2 NEG NONE NONE NORML NORML NEG 1 251 0	8 <1 NEG NONE NONE NONE NORML NORML NEG 1 273 <1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NORME NORML >0.1 >25 15	16 2 NEG NONE NONE NORML NORML NEG 1 251 0 2	8 <1 NEG NONE NONE NORML NORML NEG 1 273 <1 3	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NORME NORML >0.1 >25 15 0 0	16 2 NEG NONE NONE NORML NORML NEG 1 251 0 2 2	8    8   <1   NEG   NONE   NORML   NORML   NEG   1   273   <1   3   0	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML >0.1 >25 15 0 0	16 2 NEG NONE NONE NORML NORML NEG 1 251 0 2 2 0 6	8 <ul> <li>&lt;1</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>1</li> <li>273</li> <li>&lt;1</li> <li>3</li> <li>0</li> <li>6</li> </ul>	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML NORML >0.1 >25 15 0 0 0	16 2 NEG NONE NONE NORML NORML NEG 1 251 0 251 0 2 0 6 45	8 <1 NEG NONE NONE NORML NORML NEG 1 273 <1 3 (1 3 0 6 39	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML >0.1 >25 15 0 0	16 2 NEG NONE NONE NORML NORML NEG 1 251 0 251 0 2 0 6 45 1473	8 <ul> <li>&lt;1</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>1</li> <li>273</li> <li>&lt;1</li> <li>3</li> <li>0</li> <li>6</li> </ul>	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML >0.1 >25 0 0 0 5 600 0	16 2 NEG NONE NONE NORML NORML NEG 1 251 0 2 2 0 6 45 1473 77	8 <1 NEG NONE NONE NORML NORML NEG 1 273 <1 3 0 6 39 1529 61	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;30</li> <li>&gt;20</li> <li>&gt;0.1</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.1</li> <li>&gt;25</li> <li>0</li> <li>5</li> <li>600</li> </ul>	16 2 NEG NONE NONE NORML NORML NEG 1 251 0 251 0 2 0 6 45 1473	8 <1 NEG NONE NONE NORML NORML NEG 1 273 <1 273 <1 3 0 6 39 1529	

Contact/Location: Daniel Hachey - BATBRU





**INTERFOR CORP** Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. Recieved : 15 Jan 2024 5060 RTE 430 :LH Lab Number : 02608787 BRUNSWICK MINE, NB Diagnosed : 15 Jan 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5709873 : Wes Davis CA E2A 6W6 Diagnostician Test Package : MOB 1 Contact: Daniel Hachey To discuss this sample report, contact Customer Service at 1-800-268-2131. daniel.hachey@interfor.com T: (506)547-8700 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. F: (506)548-1892

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Contact/Location: Daniel Hachey - BATBRU

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