



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**3060**  
Component  
**Right Swing Drive**  
Fluid  
**CHEVRON DELO GEAR ESI OIL 80W90 (12 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0281138</b>	LH0218494	LH0162237
Sample Date		Client Info		<b>04 Jan 2024</b>	31 May 2022	12 Jul 2020
Machine Age	hrs	Client Info		<b>36058</b>	33023	29075
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>N/A</b>	Changed	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)	>400	<b>6</b>	1	6
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185(m)	>50	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185(m)	>200	<b>0</b>	<1	0
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

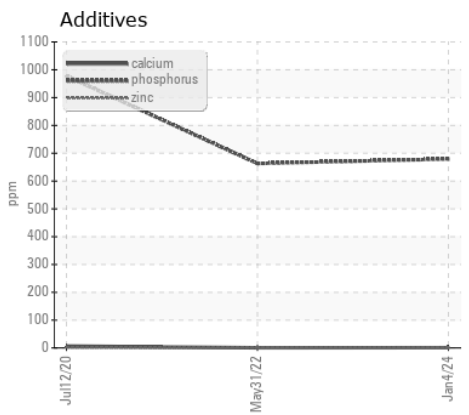
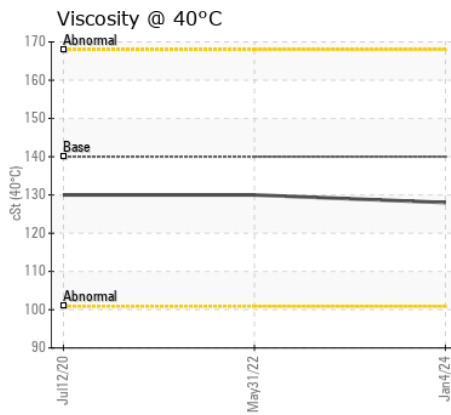
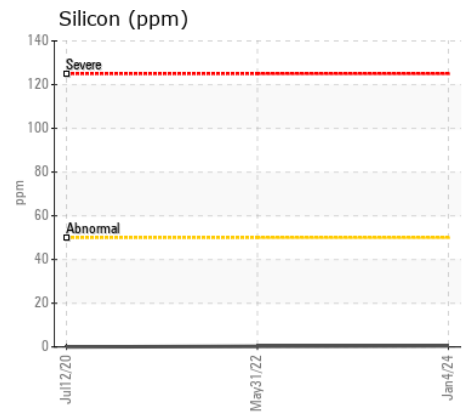
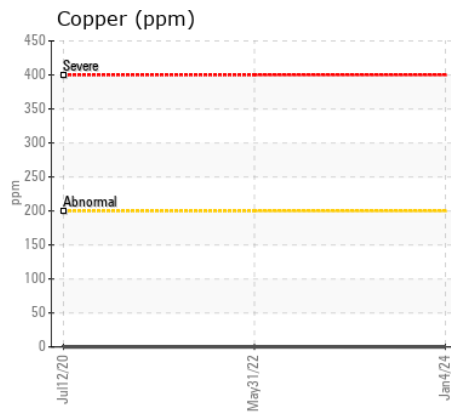
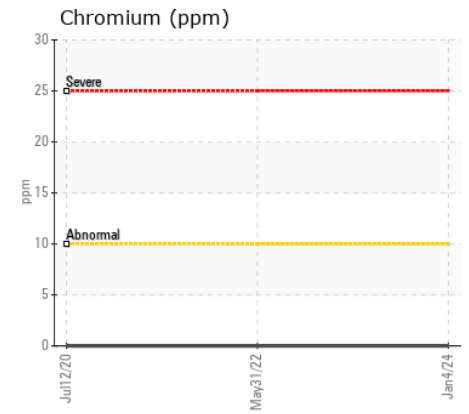
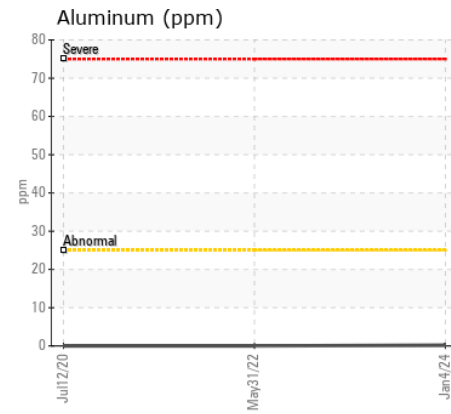
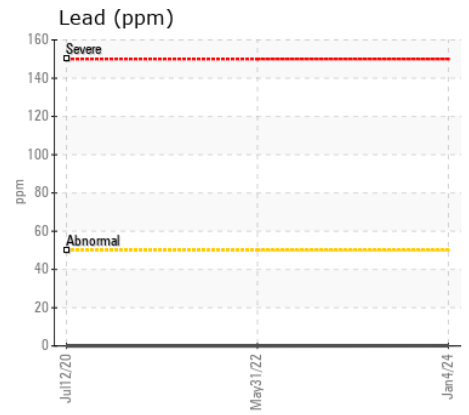
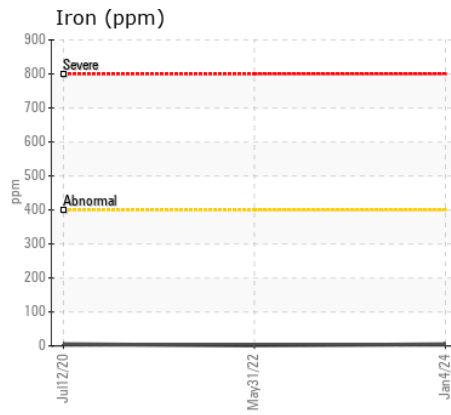
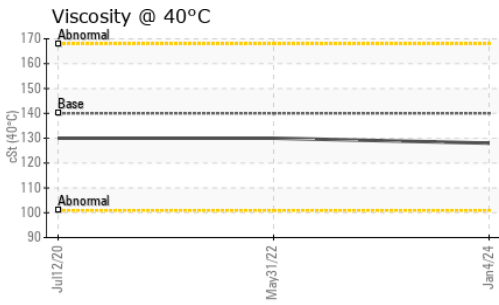
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>50	<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	3	81
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
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>0</b>	<1	<1
Boron	ppm	ASTM D5185(m)	15	<b>18</b>	3	217
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	5	<b>&lt;1</b>	<1	7
Phosphorus	ppm	ASTM D5185(m)	600	<b>679</b>	663	978
Zinc	ppm	ASTM D5185(m)	0	<b>1</b>	1	2
Sulfur	ppm	ASTM D5185(m)	22000	<b>18378</b>	18213	17697
Visc @ 40°C	cSt	ASTM D7279(m)	140	<b>128</b>	130	130



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0281138 **Received** : 10 Jan 2024  
**Lab Number** : 02607963 **Diagnosed** : 10 Jan 2024  
**Unique Number** : 5709049 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

**Fraser River Pile & Dredge**  
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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.