



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR LH60M 112212-1217**

Component  
**Front Right Wheel Hub**

Fluid  
**CHEVRON DELO SYNTHETIC GEAR 75W90 (9 LTR)**

### RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.  
Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0279411</b>	LH0279441	LH0269835
Sample Date		Client Info		<b>13 Jan 2024</b>	05 Nov 2023	26 Aug 2023
Machine Age	hrs	Client Info		<b>11086</b>	10681	10300
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>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

Les taux d'usure de tous les composants sont normaux.

Iron	ppm	ASTM D5185(m)	>650	<b>41</b>	21	34
Chromium	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>3</b>	<1	2
Lead	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>60	<b>8</b>	7	11
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

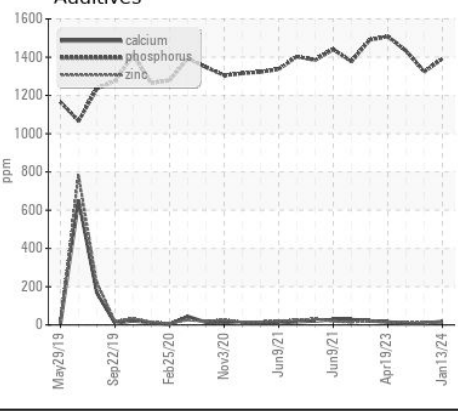
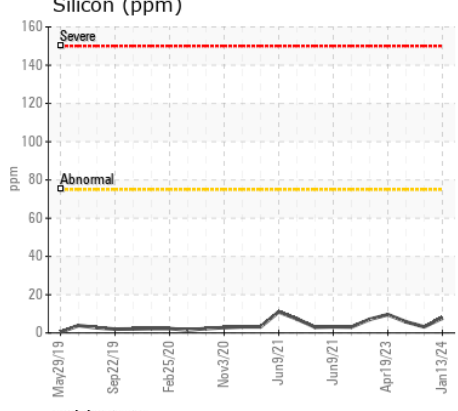
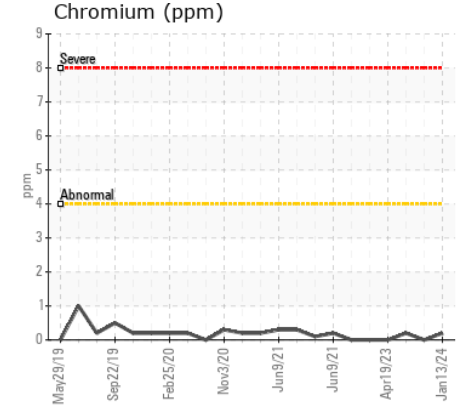
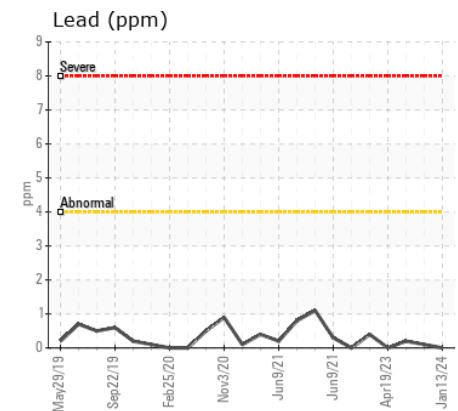
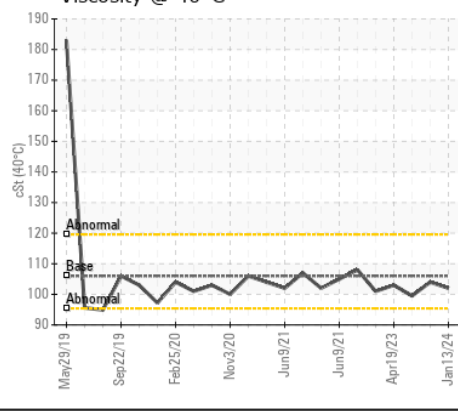
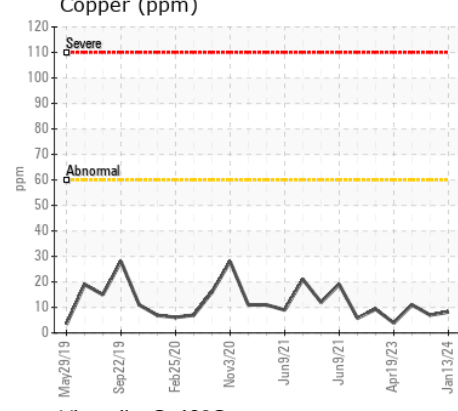
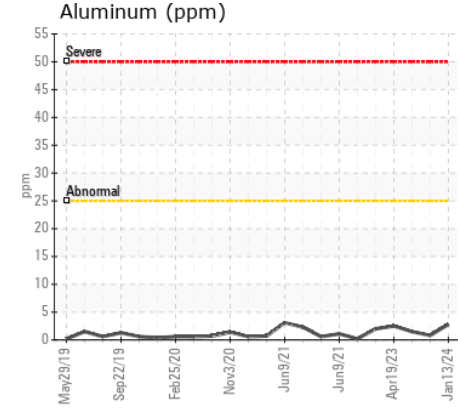
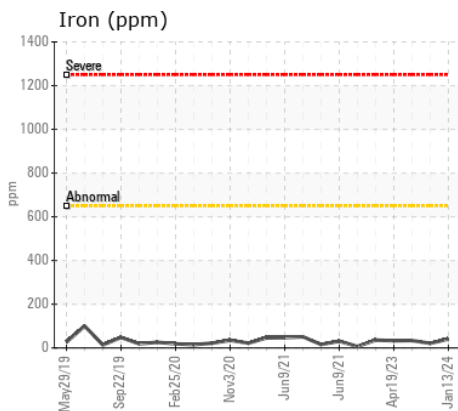
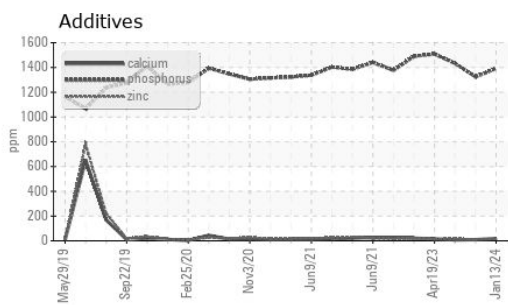
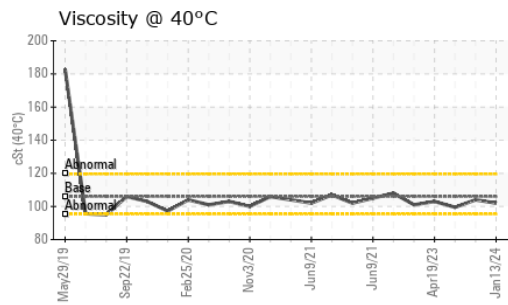
Il n'y a aucun indice de contamination dans l'huile.

Silicon	ppm	ASTM D5185(m)	>75	<b>8</b>	3	6
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	<1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
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

Les niveaux d'additifs indiquent l'ajout d'une autre marque ou d'un autre type d'huile. L'état de l'huile est acceptable pour la durée de service.

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	<1
Boron	ppm	ASTM D5185(m)		<b>269</b>	280	278
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>3</b>	<1	2
Calcium	ppm	ASTM D5185(m)		<b>18</b>	9	7
Phosphorus	ppm	ASTM D5185(m)		<b>1392</b>	1324	1433
Zinc	ppm	ASTM D5185(m)		<b>14</b>	12	16
Sulfur	ppm	ASTM D5185(m)		<b>22322</b>	22649	22346
Visc @ 40°C	cSt	ASTM D7279(m)	106	<b>102</b>	104	99.5



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 ARCELORMITTAL LONG PRODUITS CANADA  
**Sample No.** : LH0279411 **Received** : 17 Jan 2024 3185 ROUTE MARIE-VICTORIN  
**Lab Number** : 02609452 **Diagnosed** : 18 Jan 2024 CONTRECOEUR, QC  
**Unique Number** : 5710538 **Diagnostician** : Kevin Marson CA J0L 1C0  
**Test Package** : MOB 1

To discuss this sample report, contact Customer Service at 1-800-268-2131. Contact: Danny Drouin  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. danny.drouin@arcelormittal.com  
 Validity of results and interpretation are based on the sample and information as supplied. T:  
F: