



LIEBHERR

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

SEVERE

SEVERE

NORMAL



Machine Id
LIEBHERR LH60M 112212-1217

Component
Swing Drive

Fluid
CHEVRON DELO SYNTHETIC GEAR 75W90 (15 LTR)

RECOMMENDATION

Nous vous recommandons de vérifier la source de l'infiltration d'eau. Nous avons pris note que la vidange d'huile a été effectuée au moment de l'échantillonnage. Confirm the source of the lubricant being utilized for top-up/fill. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

WEAR

Usure des engrenages. Le bas indice ferreux (PQ) indique que l'usure ferreuse est due à de la corrosion.

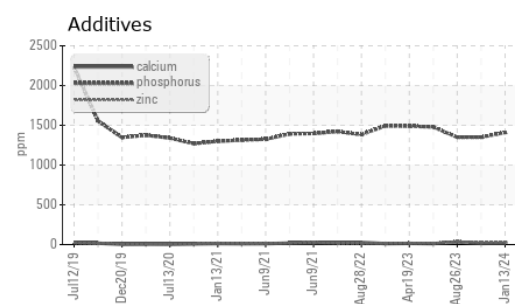
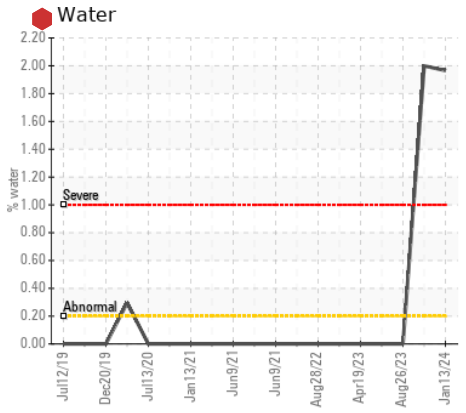
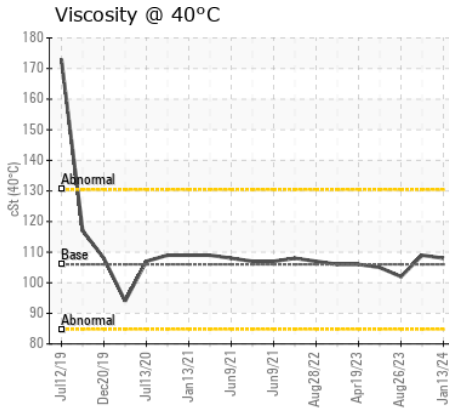
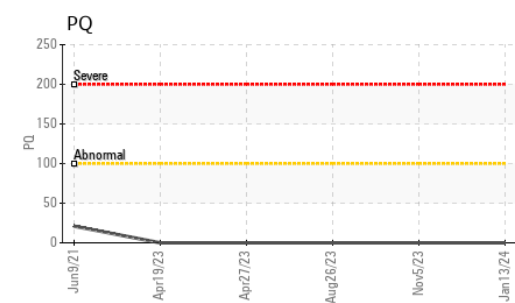
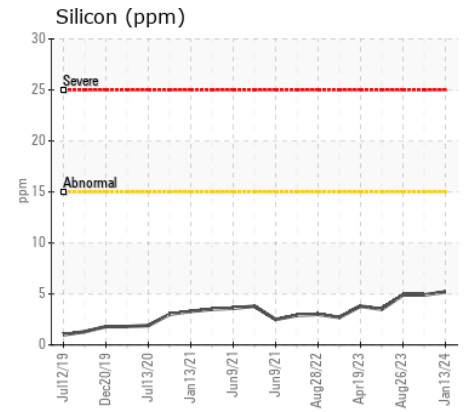
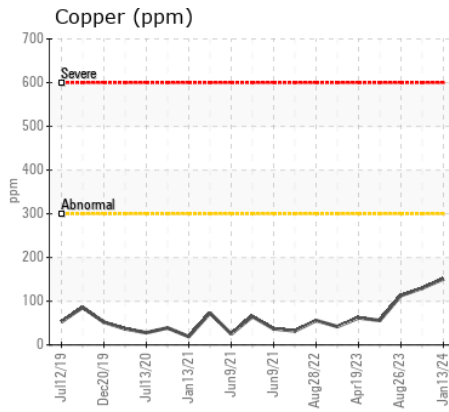
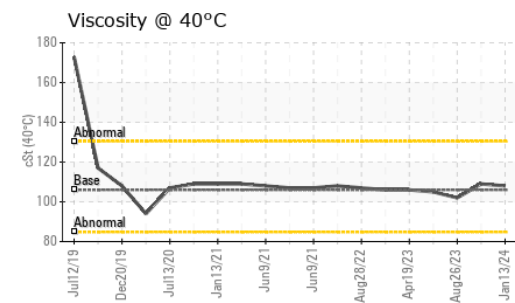
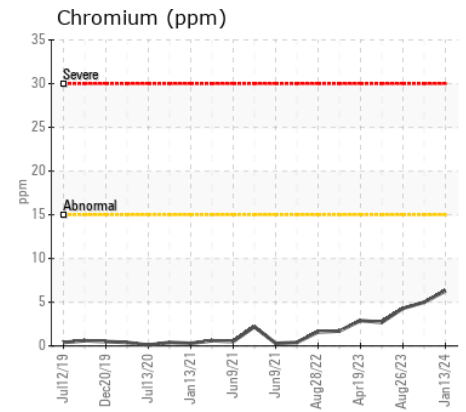
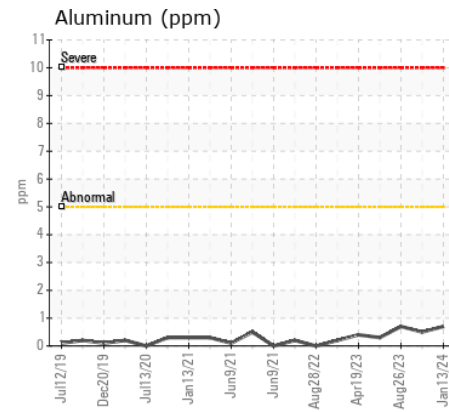
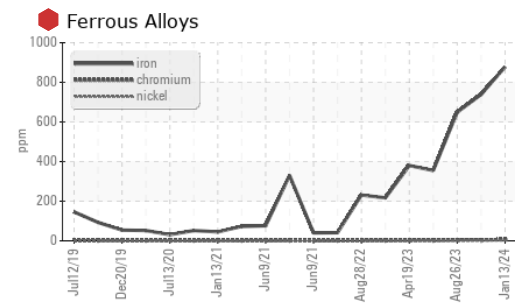
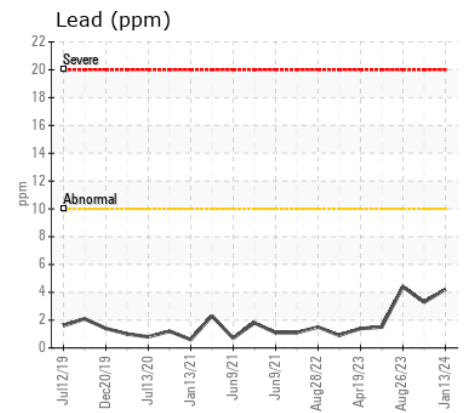
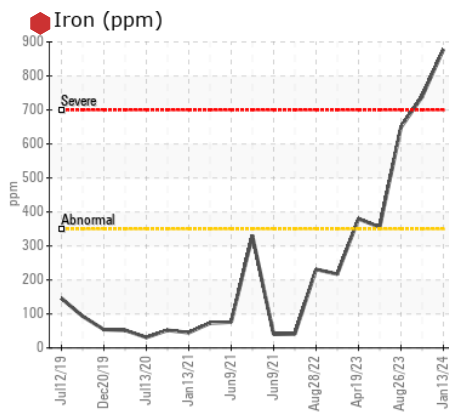
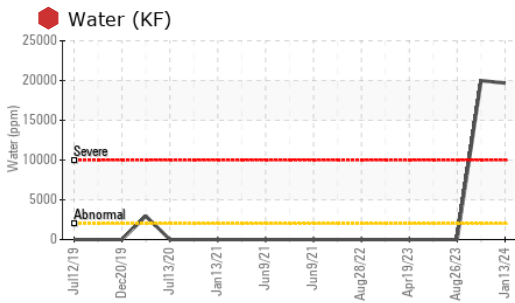
CONTAMINATION

Concentration élevée d'eau dans l'huile.

FLUID CONDITION

Les niveaux d'additifs indiquent l'ajout d'une autre marque ou d'un autre type d'huile. l'huile n'est plus en état de service en raison d'une usure anormale et/ou sévère.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0279407	LH0256413	LH0269830
Sample Date		Client Info		13 Jan 2024	05 Nov 2023	26 Aug 2023
Machine Age	hrs	Client Info		11086	10681	10300
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	ABNORMAL
PQ		ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m)	>350	878	739	649
Chromium	ppm	ASTM D5185(m)	>15	6	5	4
Nickel	ppm	ASTM D5185(m)	>5	1	1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>5	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>10	4	3	4
Copper	ppm	ASTM D5185(m)	>300	151	130	113
Tin	ppm	ASTM D5185(m)	>15	2	1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>15	5	5	5
Potassium	ppm	ASTM D5185(m)	>20	1	<1	<1
Water	%	ASTM D6304*	>0.2	1.966	1.999	---
ppm Water	ppm	ASTM D6304*	>2000	19668	19998.7	---
Silt	scalar	Visual*	NONE	NONE	NONE	VLITE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	VLITE
Appearance	scalar	Visual*	NORML	NORML	NORML	LAYRD
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	.5%	.5%	1%
Sodium	ppm	ASTM D5185(m)		1	3	2
Boron	ppm	ASTM D5185(m)		241	247	192
Barium	ppm	ASTM D5185(m)		0	<1	<1
Molybdenum	ppm	ASTM D5185(m)		0	0	1
Manganese	ppm	ASTM D5185(m)		5	4	4
Magnesium	ppm	ASTM D5185(m)		2	1	11
Calcium	ppm	ASTM D5185(m)		17	14	33
Phosphorus	ppm	ASTM D5185(m)		1408	1351	1350
Zinc	ppm	ASTM D5185(m)		27	24	40
Sulfur	ppm	ASTM D5185(m)		23668	23777	19681
Visc @ 40°C	cSt	ASTM D7279(m)	106	108	109	102



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 ARCELORMITTAL LONG PRODUITS CANADA
Sample No. : LH0279407 **Received** : 17 Jan 2024 3185 ROUTE MARIE-VICTORIN
Lab Number : 02609456 **Diagnosed** : 18 Jan 2024 CONTRECOEUR, QC
Unique Number : 5710542 **Diagnostician** : Kevin Marson CA J0L 1C0
Test Package : MOB 1 (Additional Tests: KF, PQ) Contact: Danny Drouin
 danny.drouin@arcelormittal.com

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.