



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[592767]
 Machine Id
LIEBHERR HS895 188244
 Component
Diesel Engine
 Fluid
PETRO CANADA 10W40 (44 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0278947	LH0281367	LH0276123
Sample Date		Client Info		06 Jan 2024	21 Dec 2023	05 Sep 2023
Machine Age	hrs	Client Info		20588	20240	19868
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	15	38	15
Chromium	ppm	ASTM D5185(m)	>5	<1	1	1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	4	3	4
Lead	ppm	ASTM D5185(m)	>30	2	4	2
Copper	ppm	ASTM D5185(m)	>125	4	▲ 125	9
Tin	ppm	ASTM D5185(m)	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

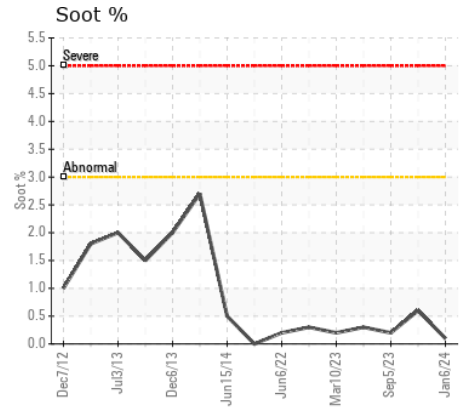
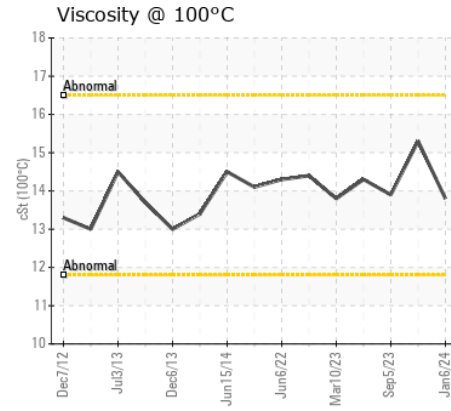
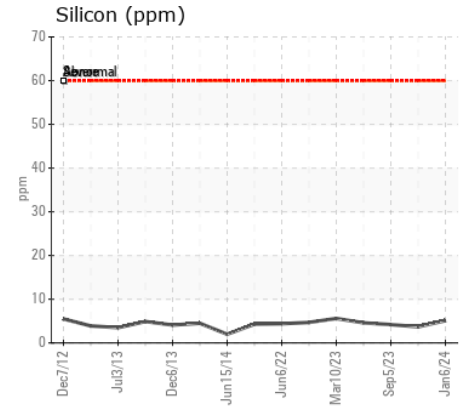
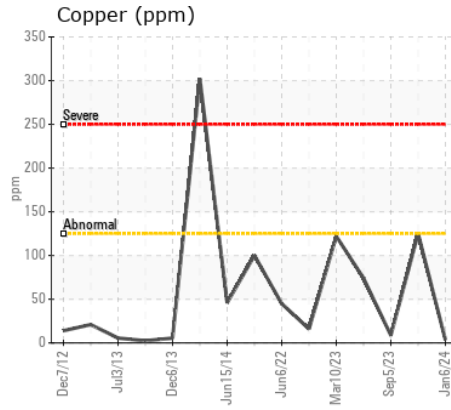
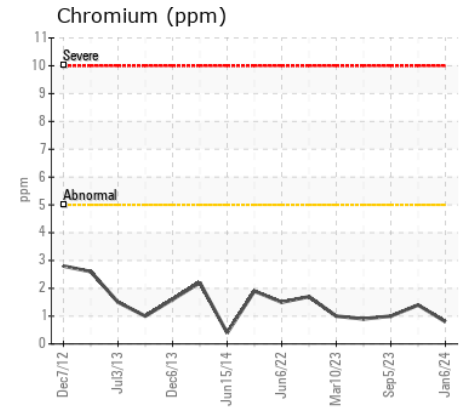
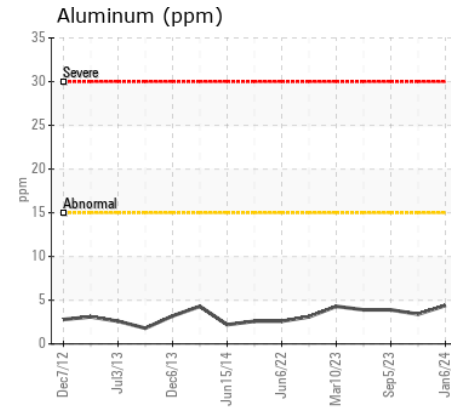
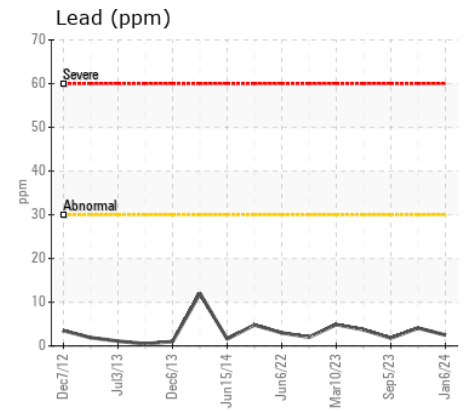
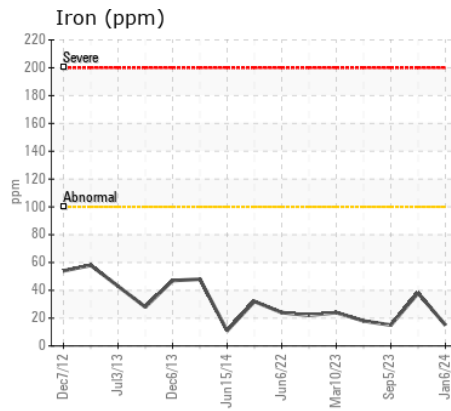
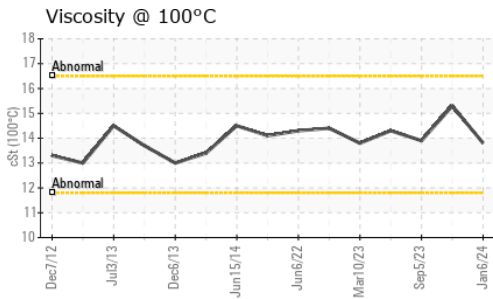
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	5	4	4
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.1	0.6	0.2
Nitration	Abs/cm	ASTM D7624*	>20	8.6	11.4	8.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.6	25.5	21.1
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>20	2	2	2
Boron	ppm	ASTM D5185(m)		47	4	4
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		66	74	66
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		955	1211	1097
Calcium	ppm	ASTM D5185(m)		1421	1336	1202
Phosphorus	ppm	ASTM D5185(m)		1133	1149	1145
Zinc	ppm	ASTM D5185(m)		1354	1484	1348
Sulfur	ppm	ASTM D5185(m)		2982	2607	2660
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.1	24.6	17.4
Visc @ 100°C	cSt	ASTM D7279(m)		13.8	▲ 15.3	13.9



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0278947 **Received** : 23 Jan 2024
Lab Number : 02610498 **Diagnosed** : 23 Jan 2024
Unique Number : 5711584 **Diagnostician** : Kevin Marson
Test Package : MOB 1

HIGGS & HIGGS
 RR # 4
 ST THOMAS, ON
 CA N5P 3S8
 Contact: Bernie Higgs

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.

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