



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH22M 146587-1250
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0282643	LH0279534	LH
Sample Date		Client Info		05 Dec 2023	05 Dec 2023	28 Aug 2023
Machine Age	hrs	Client Info		2000	1259	574
Oil Age	hrs	Client Info		500	0	0
Filter Age	hrs	Client Info		500	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>66	16	24	30
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>8	1	2	4
Lead	ppm	ASTM D5185(m)	>10	0	4	2
Copper	ppm	ASTM D5185(m)	>74	5	128	68
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

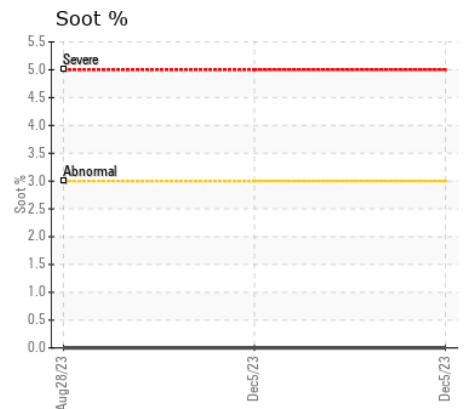
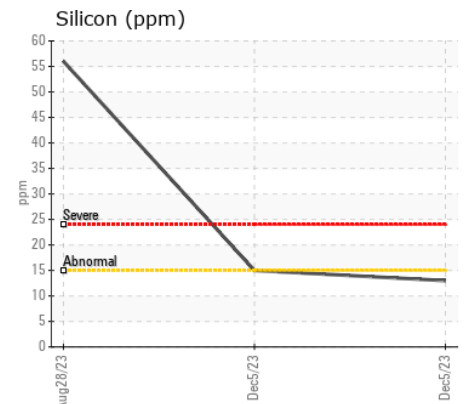
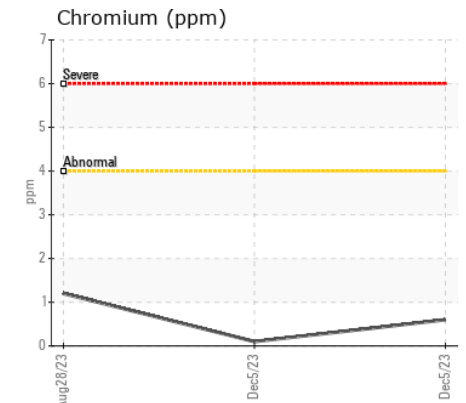
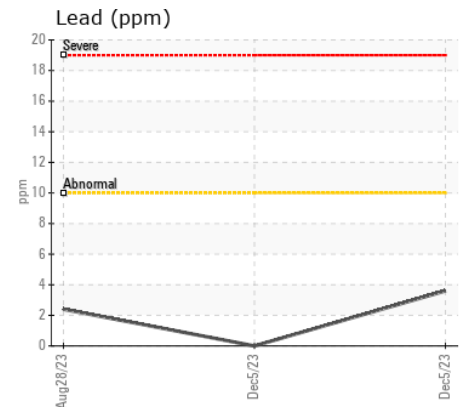
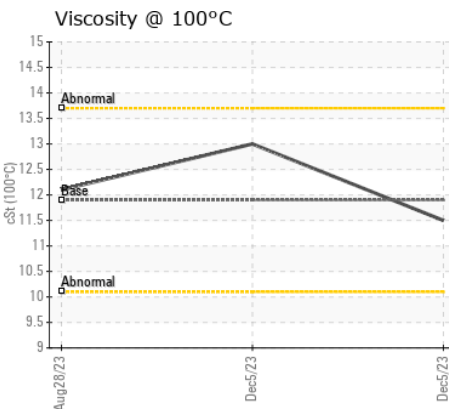
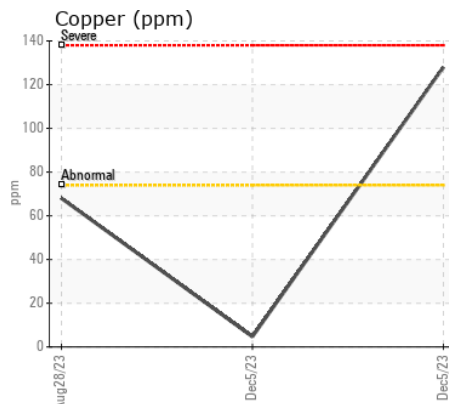
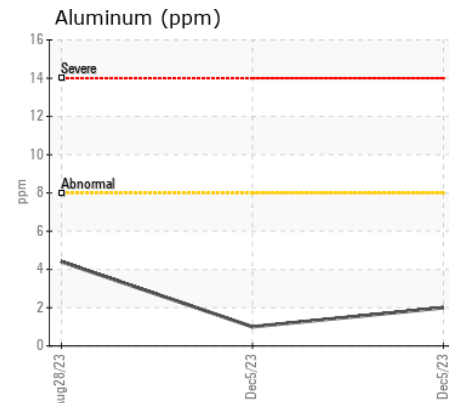
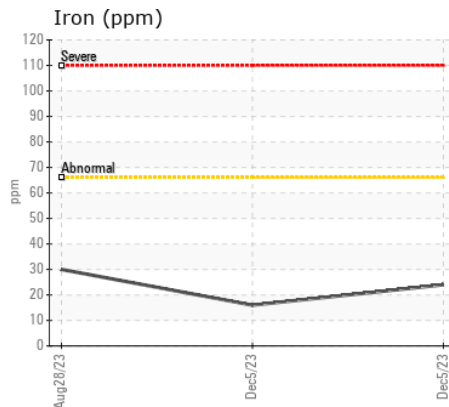
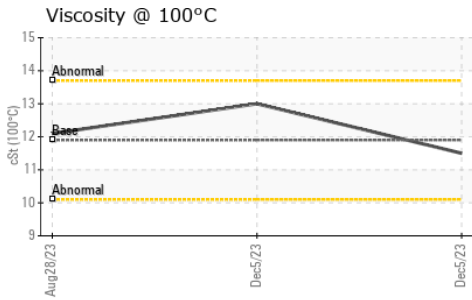
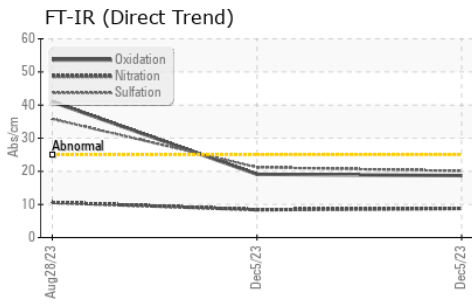
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	15	13	56
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Fuel		WC Method	>5	<1.0	<1.0	0.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	8.8	8.4	10.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.1	21.2	35.8
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)		5	3	6
Boron	ppm	ASTM D5185(m)	0	33	4	71
Barium	ppm	ASTM D5185(m)	0	0	<1	4
Molybdenum	ppm	ASTM D5185(m)	64	57	63	46
Manganese	ppm	ASTM D5185(m)	0	<1	<1	4
Magnesium	ppm	ASTM D5185(m)	1160	1087	1033	766
Calcium	ppm	ASTM D5185(m)	820	814	1160	1815
Phosphorus	ppm	ASTM D5185(m)	1160	1006	992	838
Zinc	ppm	ASTM D5185(m)	1260	1155	1251	948
Sulfur	ppm	ASTM D5185(m)	3000	2950	2341	2130
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.7	19.1	41.0
Visc @ 100°C	cSt	ASTM D7279(m)	11.9	11.5	▲ 13.0	12.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0282643 **Received** : 29 Apr 2024
Lab Number : 02631924 **Tested** : 29 Apr 2024
Unique Number : 5773077 **Diagnosed** : 30 Apr 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Visual)

CONTENEUR ROSE INC.
 89 RUE MORANE
 LAVAL, QC
 CA H7M 1R5
 Contact: Service Manager

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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F: