



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR PR766 16664
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (65 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0265028	LH0265117	LH0146345
Sample Date		Client Info		18 Jan 2024	05 Jul 2023	08 Jun 2023
Machine Age	hrs	Client Info		7871	6441	6060
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	2	96	461
Chromium	ppm	ASTM D5185(m)	>5	0	9	47
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	1
Titanium	ppm	ASTM D5185(m)		0	<1	10
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	2	11	155
Lead	ppm	ASTM D5185(m)	>30	<1	1	18
Copper	ppm	ASTM D5185(m)	>125	17	12	25
Tin	ppm	ASTM D5185(m)	>5	0	<1	4
Vanadium	ppm	ASTM D5185(m)		0	0	<1
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

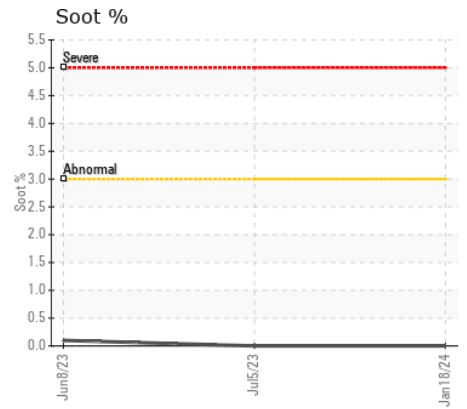
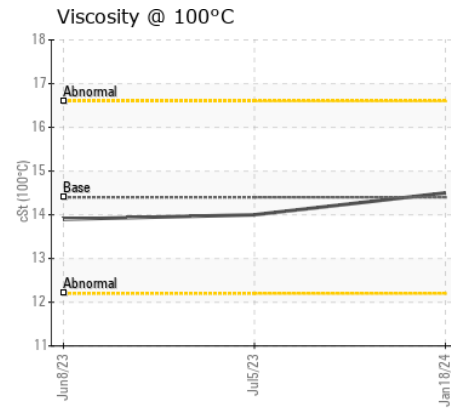
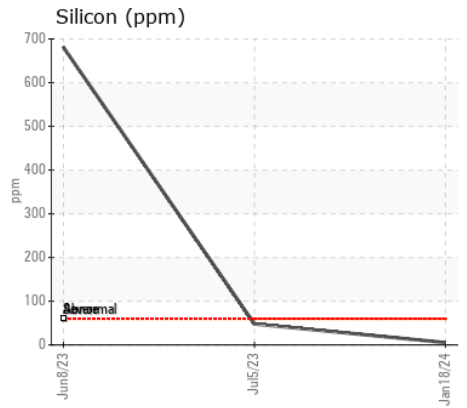
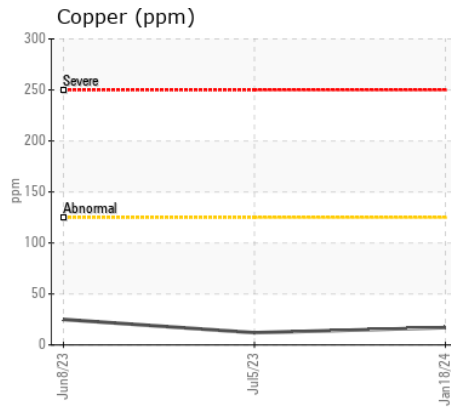
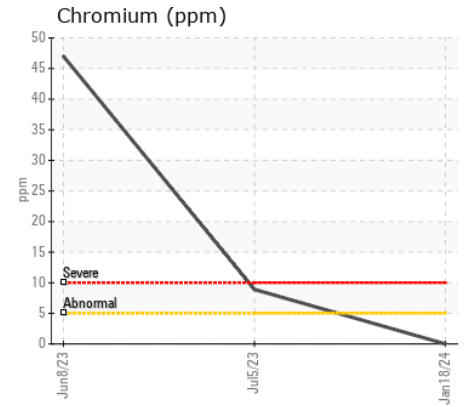
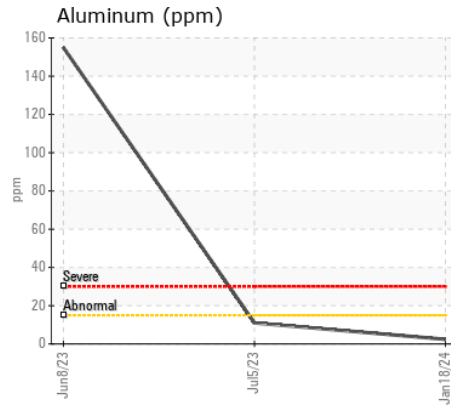
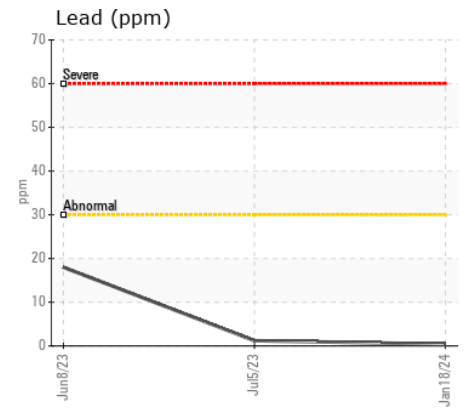
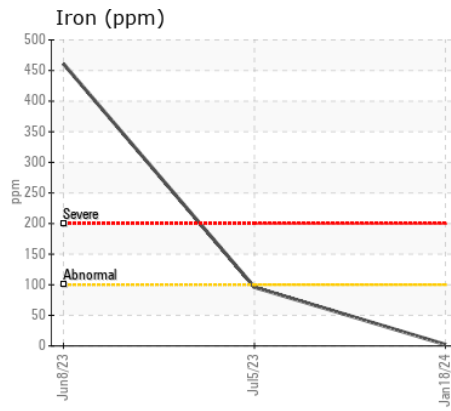
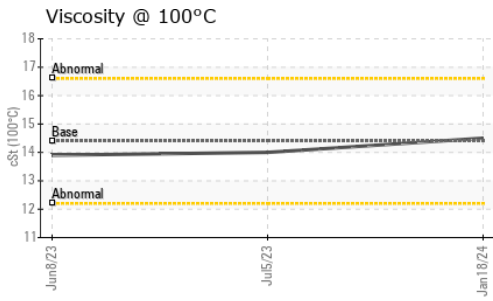
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	5	48	681
Potassium	ppm	ASTM D5185(m)	>20	<1	7	46
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	0.0
Soot %	%	ASTM D7844*	>3	0	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	4.9	7.9	7.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	15.9	17.4	22.2
Silt	scalar	Visual*	NONE	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	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)	>216	<1	4	26
Boron	ppm	ASTM D5185(m)	250	5	7	2
Barium	ppm	ASTM D5185(m)	10	0	1	1
Molybdenum	ppm	ASTM D5185(m)	100	2	6	26
Manganese	ppm	ASTM D5185(m)		0	1	6
Magnesium	ppm	ASTM D5185(m)	450	35	96	418
Calcium	ppm	ASTM D5185(m)	3000	1972	2123	2000
Phosphorus	ppm	ASTM D5185(m)	1150	851	1018	1088
Zinc	ppm	ASTM D5185(m)	1350	960	1095	1175
Sulfur	ppm	ASTM D5185(m)	4250	3029	3190	3186
Oxidation	Abs/.1mm	ASTM D7414*	>25	12.0	13.5	14.3
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	14.5	14.0	13.9



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 NEEGAN DEVELOPMENT CORPORATION LTD.
Sample No. : LH0265028 **Received** : 23 Jan 2024 **283 MACALPINE CRESCENT**
Lab Number : 02610502 **Diagnosed** : 23 Jan 2024 **FORT MCMURRAY, AB**
Unique Number : 5711588 **Diagnostician** : Wes Davis **CA T9H 4Y4**
Test Package : MOB 1 (Additional Tests: Visual) **Contact: SERVICE**

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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