MOB I

LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR LH50M 124550-1216
Component
Diesel Engine
Fluid
PETRO CANADA 10W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

WEAR

All component wear rates are normal.

CONTAMINATION

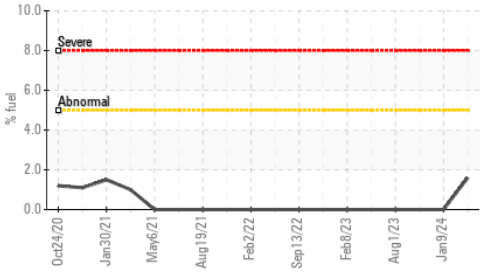
Light fuel dilution occurring. No other contaminants were detected in the oil.

FLUID CONDITION

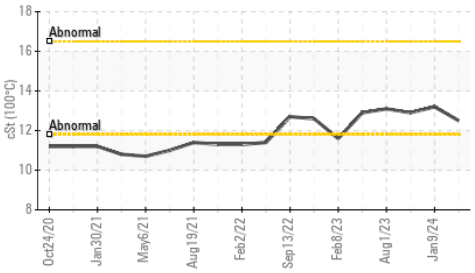
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**LH0278733**	LH0278894	LH0270140
Sample Date		Client Info		**04 Mar 2024**	09 Jan 2024	27 Sep 2023
Machine Age	hrs	Client Info		**14018**	13772	12565
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				**NORMAL**	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>66	**3**	3	4
Chromium	ppm	ASTM D5185(m)	>4	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>4	**0**	<1	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>8	**1**	2	2
Lead	ppm	ASTM D5185(m)	>10	**0**	<1	<1
Copper	ppm	ASTM D5185(m)	>74	**2**	2	2
Tin	ppm	ASTM D5185(m)	>4	**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Silicon	ppm	ASTM D5185(m)	>15	**7**	7	7
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	4
Fuel	%	ASTM D7593*	>5	**1.6**	<1.0	<1.0
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	**7.7**	8.5	8.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	**18.9**	19.6	20.5
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185(m)	>20	**2**	1	2
Boron	ppm	ASTM D5185(m)		**22**	2	<1
Barium	ppm	ASTM D5185(m)		**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)		**58**	56	59
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)		**1015**	943	982
Calcium	ppm	ASTM D5185(m)		**936**	1129	1066
Phosphorus	ppm	ASTM D5185(m)		**1004**	986	959
Zinc	ppm	ASTM D5185(m)		**1165**	1167	1198
Sulfur	ppm	ASTM D5185(m)		**2842**	2624	2387
Oxidation	Abs/.1mm	ASTM D7414*	>25	**16.4**	17.3	18.6
Visc @ 100°C	cSt	ASTM D7279(m)		**12.5**	13.2	12.9

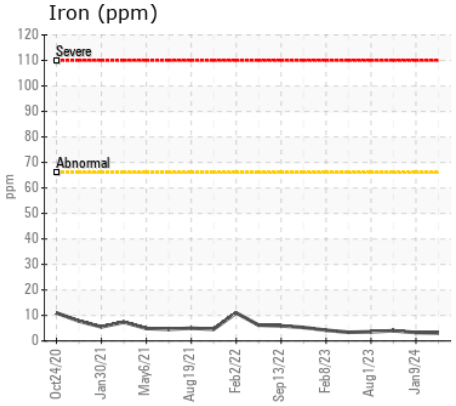
Fuel Dilution



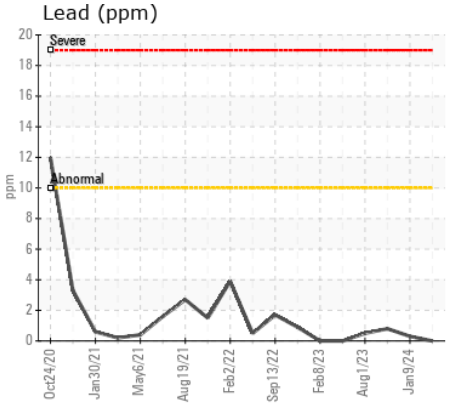
Viscosity @ 100°C



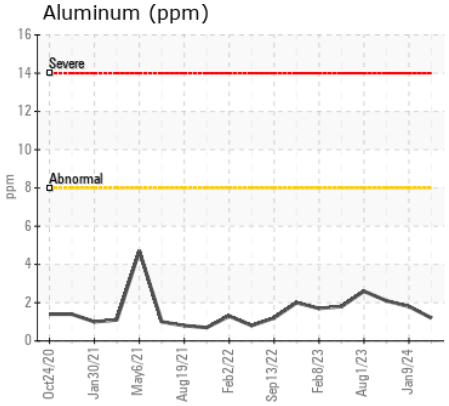
Iron (ppm)



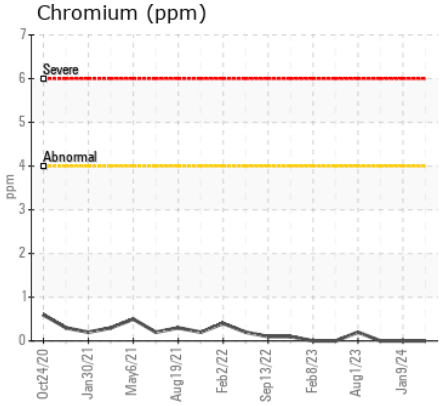
Lead (ppm)



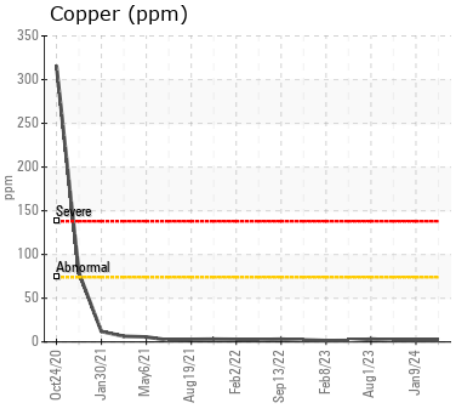
Aluminum (ppm)



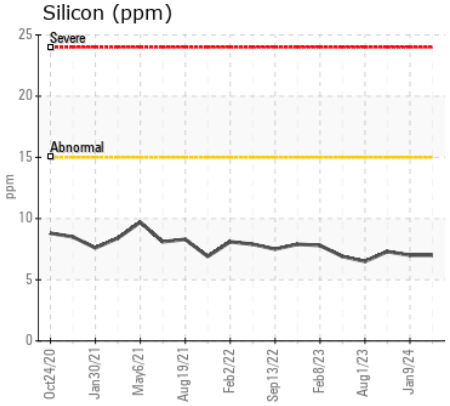
Chromium (ppm)



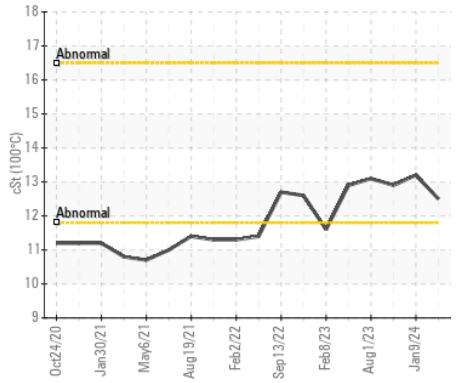
Copper (ppm)



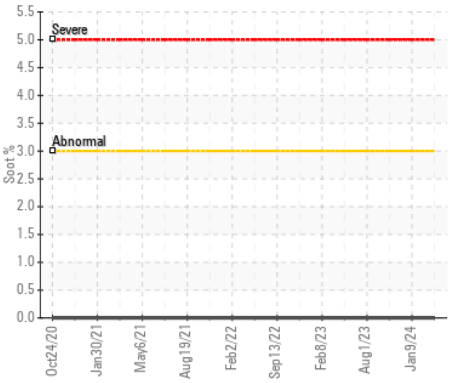
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0278733
Lab Number : 02620417
Unique Number : 5737527
Test Package : MOB 1 (Additional Tests: FUELDILUTION, PercentFuel)

Received : 07 Mar 2024
Tested : 11 Mar 2024
Diagnosed : 11 Mar 2024 - Kevin Marson

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.

COMBINED METAL INDUSTRIES-PUBLIC YARD
129 FENMAR DR
TORONTO, ON
CA M9L 1M7
Contact: Greg Sacher
gsacher@combinedmetal.com
T: (416)642-7262
F: x: