



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL



Area
(374940)
Machine Id
LIEBHERR LH30M 137944-1253
Component
Diesel Engine
Fluid
SAE 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0278730	LH0256534	LH0239386
Sample Date		Client Info		22 Feb 2024	13 Jun 2023	13 Feb 2023
Machine Age	hrs	Client Info		2777	1701	1206
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				MARGINAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>66	3	4	5
Chromium	ppm	ASTM D5185(m)	>4	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>8	2	2	2
Lead	ppm	ASTM D5185(m)	>10	0	1	3
Copper	ppm	ASTM D5185(m)	>74	2	33	102
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

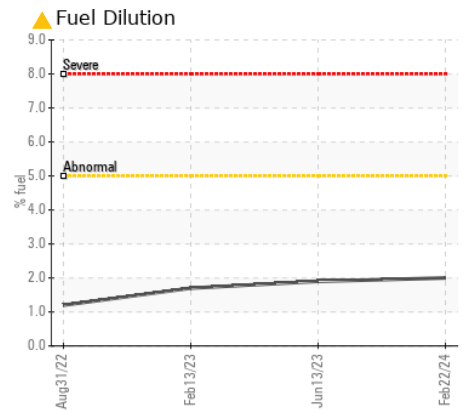
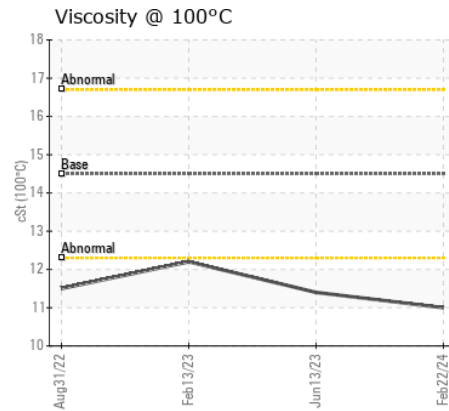
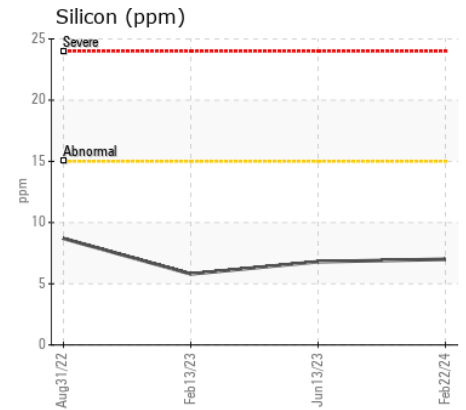
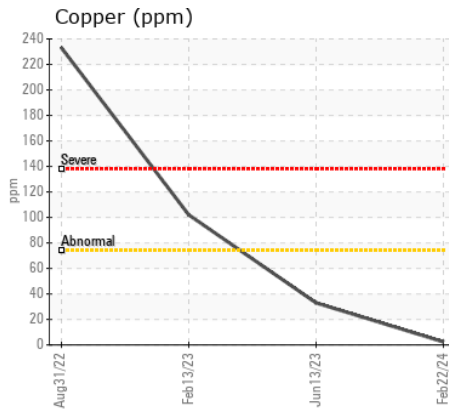
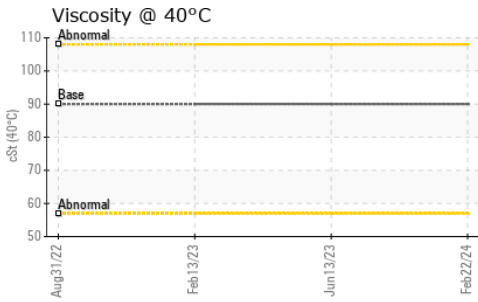
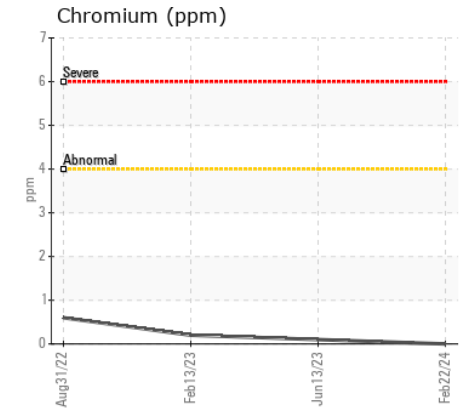
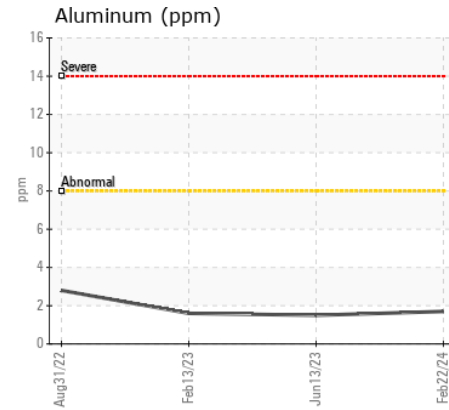
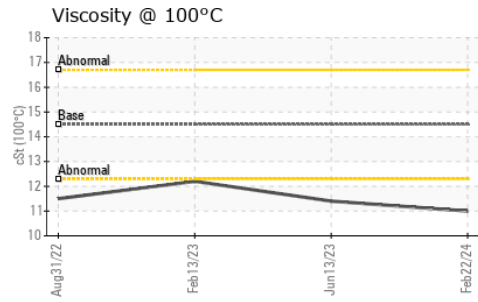
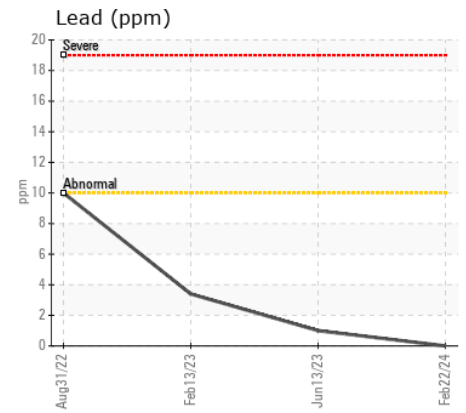
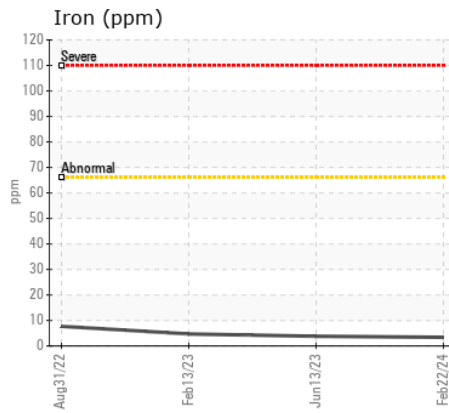
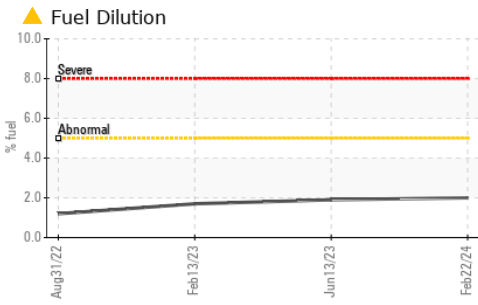
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>15	7	7	6
Potassium	ppm	ASTM D5185(m)	>20	1	0	2
Fuel	%	ASTM D7593*	>5	▲ 2	1.9	1.7
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	8.9	8.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.7	20.7	23.0
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)	>401	4	4	2
Boron	ppm	ASTM D5185(m)		36	34	8
Barium	ppm	ASTM D5185(m)		0	<1	3
Molybdenum	ppm	ASTM D5185(m)		58	59	58
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		1060	1085	962
Calcium	ppm	ASTM D5185(m)		833	923	1165
Phosphorus	ppm	ASTM D5185(m)		1015	1076	1058
Zinc	ppm	ASTM D5185(m)		1155	1206	1152
Sulfur	ppm	ASTM D5185(m)		3360	2794	2481
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.2	19.2	19.6
Visc @ 40°C	cSt	ASTM D7279(m)	90.0	66.1	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	11.0	▲ 11.4	12.2
Viscosity Index (VI)	Scale	ASTM D2270*	167	158	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0278730 **Received** : 23 Feb 2024
Lab Number : 02617725 **Tested** : 27 Feb 2024
Unique Number : 5734835 **Diagnosed** : 27 Feb 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

KINGS AUTO WRECKERS
 1866 DRUMMOND LINE
 PETERBOROUGH, ON
 CA K9J 6X8
 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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