



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
SOUTH HOLLAND
 Machine Id
LIEBHERR LTM1250 AT6021 (S/N 046021)
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL 10W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HPL0004459	HPL0002454	---
Sample Date		Client Info		16 Feb 2024	12 Sep 2023	---
Machine Age	hrs	Client Info		4448	8188	---
Oil Age	hrs	Client Info		0	563	---
Filter Age	hrs	Client Info		0	563	---
Oil Changed		Client Info		N/A	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	27	4	---
Chromium	ppm	ASTM D5185m	>5	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>15	12	6	---
Lead	ppm	ASTM D5185m	>30	<1	2	---
Copper	ppm	ASTM D5185m	>125	<1	103	---
Tin	ppm	ASTM D5185m	>5	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

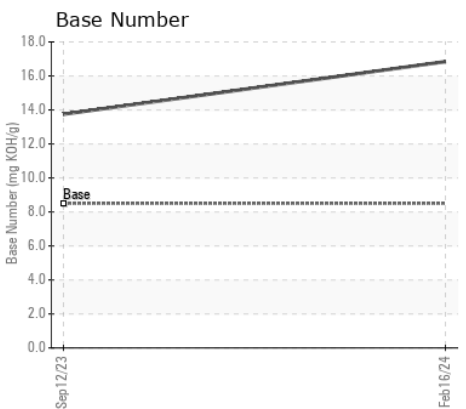
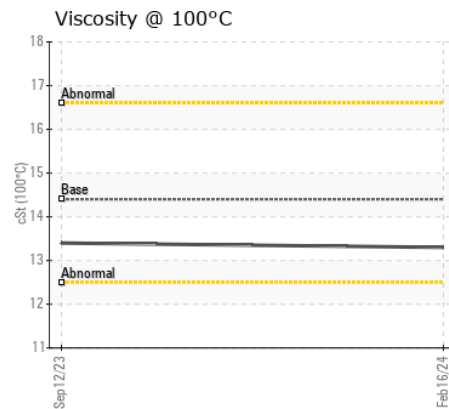
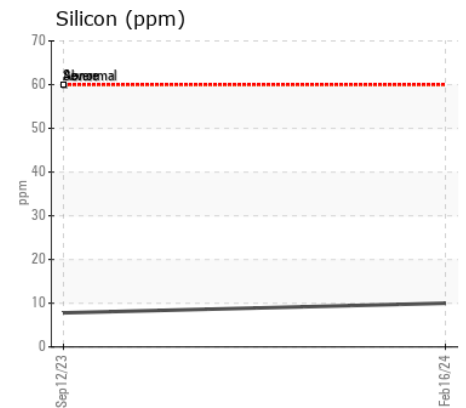
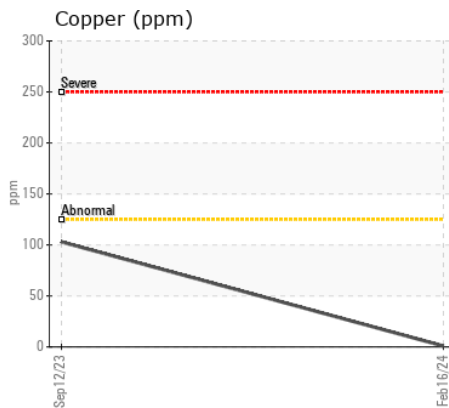
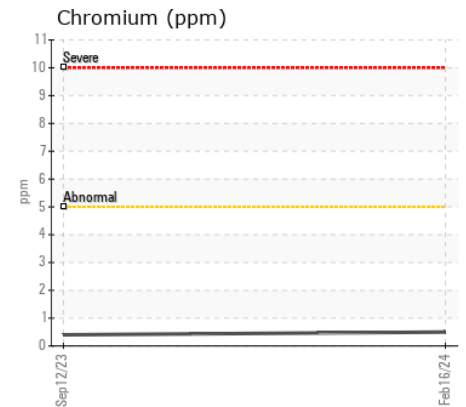
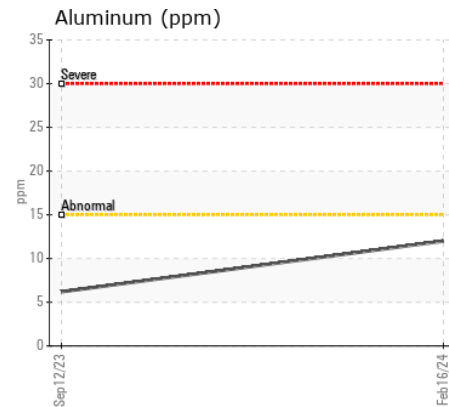
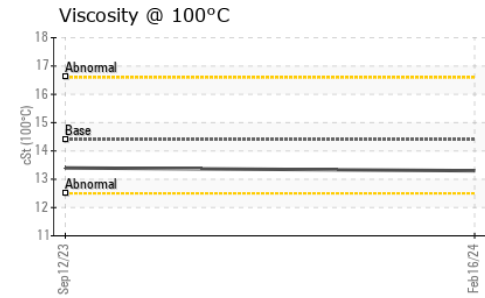
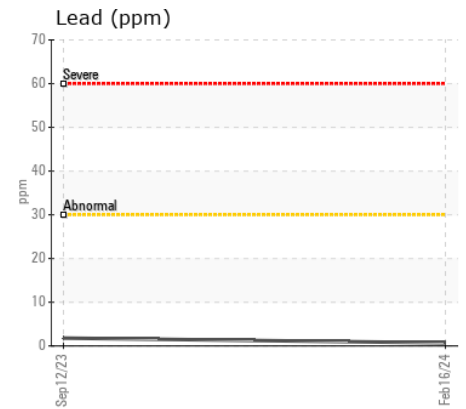
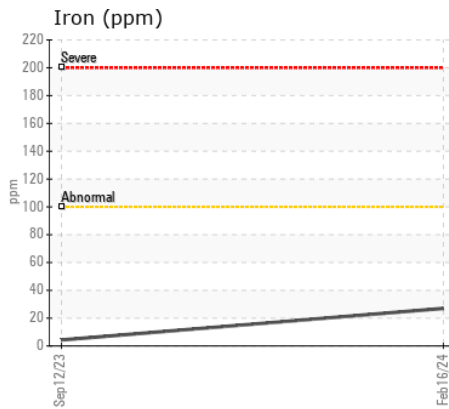
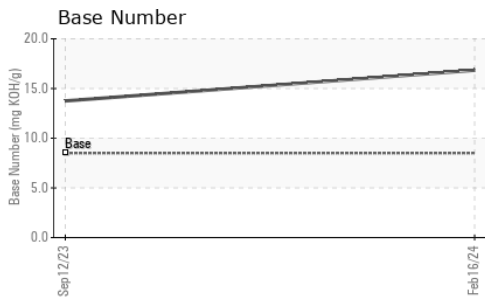
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	10	8	---
Potassium	ppm	ASTM D5185m	>20	<1	0	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0	---
Nitration	Abs/cm	*ASTM D7624	>20	8.3	12.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	34.3	41.1	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	2	---
Boron	ppm	ASTM D5185m	250	57	17	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	590	587	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	450	892	1042	---
Calcium	ppm	ASTM D5185m	3000	2833	2716	---
Phosphorus	ppm	ASTM D5185m	1150	1103	1097	---
Zinc	ppm	ASTM D5185m	1350	1269	1363	---
Sulfur	ppm	ASTM D5185m	4250	10255	10067	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	33.1	42.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	16.84	13.75	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.3	13.4	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HPL0004459
Lab Number : 06101905
Unique Number : 10900135
Test Package : MOB 2

Received : 27 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 29 Feb 2024 - Sean Felton

STEVENS ON CRANE
 410 STEVENSON DR
 BOLINGBROOK, IL
 US 60440

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F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)