



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HAMM H14I H2340685

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0195022	JR0117152	---
Sample Date		Client Info		26 Feb 2024	14 Jan 2022	---
Machine Age	hrs	Client Info		532	345	---
Oil Age	hrs	Client Info		532	0	---
Filter Age	hrs	Client Info		532	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	▲ 235	103	---
Chromium	ppm	ASTM D5185m	>20	3	2	---
Nickel	ppm	ASTM D5185m	>4	<1	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	17	7	---
Lead	ppm	ASTM D5185m	>40	<1	2	---
Copper	ppm	ASTM D5185m	>330	7	13	---
Tin	ppm	ASTM D5185m	>15	2	3	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

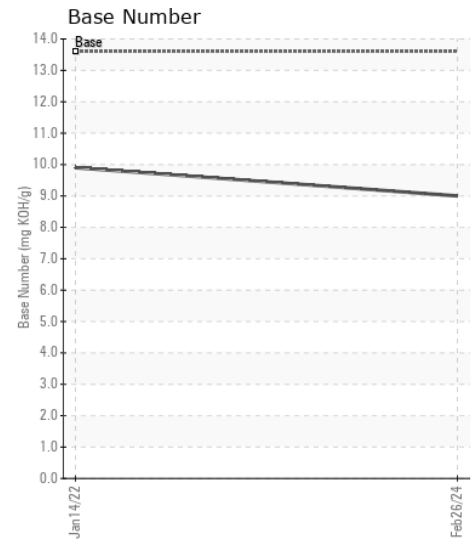
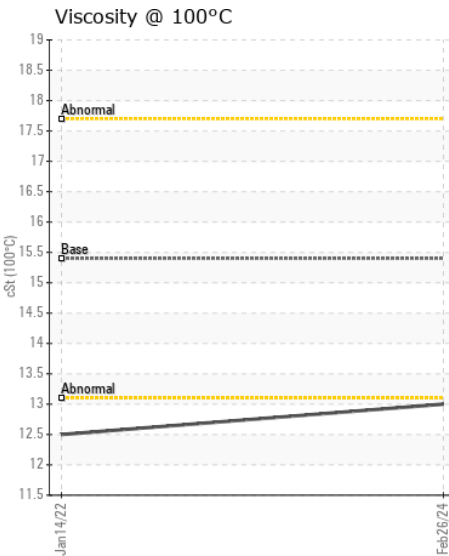
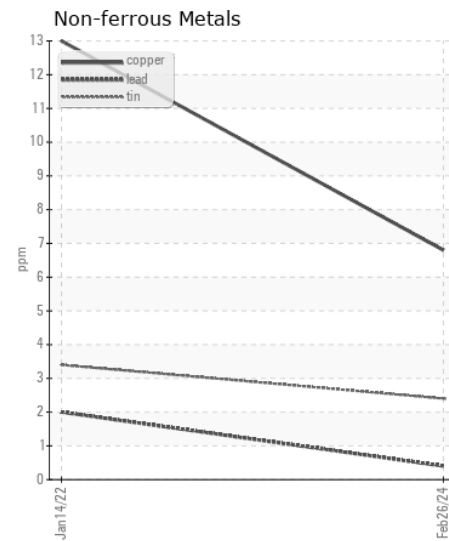
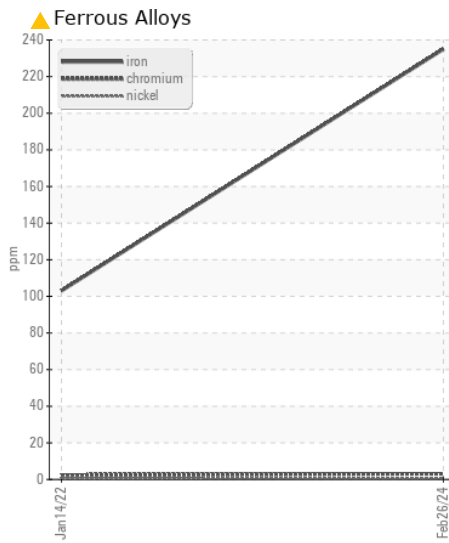
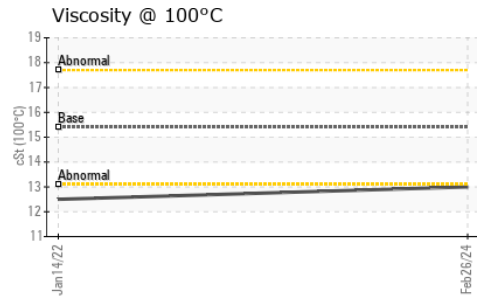
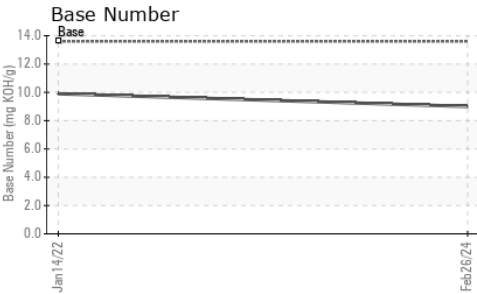
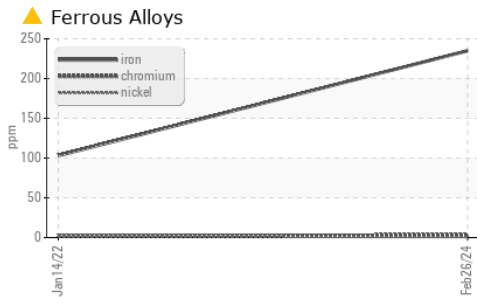
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	23	26	---
Potassium	ppm	ASTM D5185m	>20	2	3	---
Fuel	%	ASTM D3524	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	8.3	6.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	22.1	---
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	3	---
Boron	ppm	ASTM D5185m		182	107	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		193	51	---
Manganese	ppm	ASTM D5185m		3	6	---
Magnesium	ppm	ASTM D5185m		717	523	---
Calcium	ppm	ASTM D5185m		1330	1583	---
Phosphorus	ppm	ASTM D5185m		917	1046	---
Zinc	ppm	ASTM D5185m		1126	1314	---
Sulfur	ppm	ASTM D5185m		3266	4698	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	18.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.0	9.9	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	12.5	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0195022 **Received** : 01 Mar 2024
Lab Number : 06105920 **Tested** : 05 Mar 2024
Unique Number : 10909417 **Diagnosed** : 05 Mar 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, TBN)

JRE - STEPHENSON
 245 YARDMASTER COURT
 STEPHENSON, VA
 US 22656-1761
 Contact: PHIL DAUGHERTY
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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)

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