



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[W22218 ANDERSON]

Machine Id

JOHN DEERE 990 LV0990G691345

Component

Diesel Engine

Fluid

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

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0210816	---	---
Sample Date		Client Info		23 May 2024	---	---
Machine Age	hrs	Client Info		404	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	11	---	---
Chromium	ppm	ASTM D5185m	>11	0	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>31	4	---	---
Lead	ppm	ASTM D5185m	>26	4	---	---
Copper	ppm	ASTM D5185m	>26	<1	---	---
Tin	ppm	ASTM D5185m	>4	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

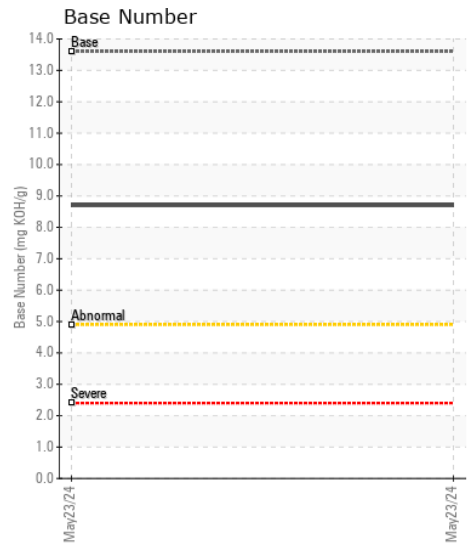
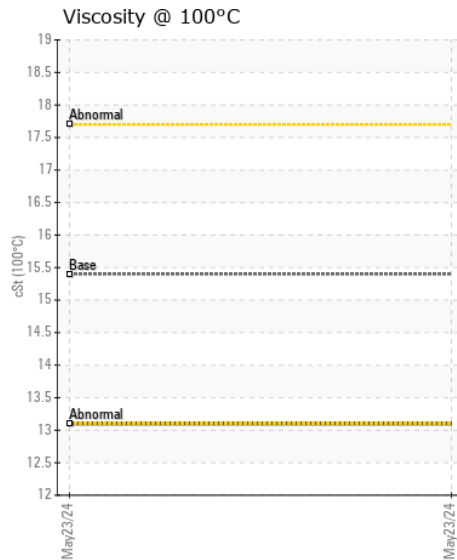
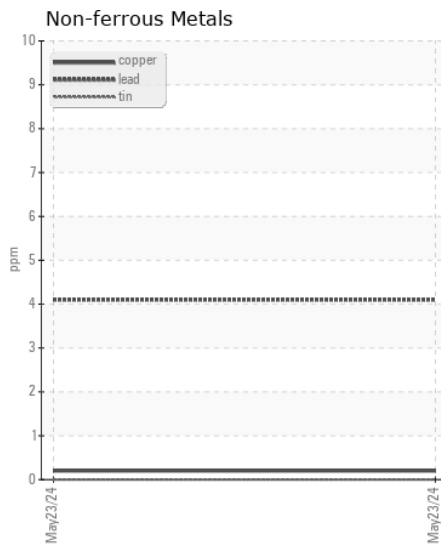
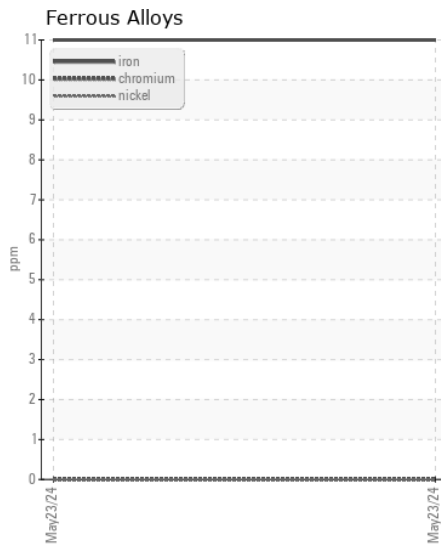
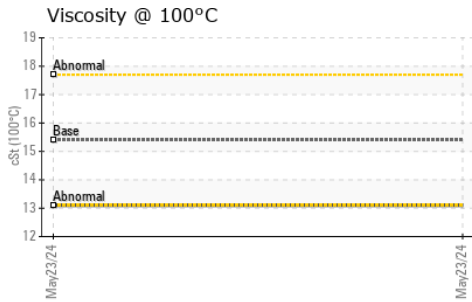
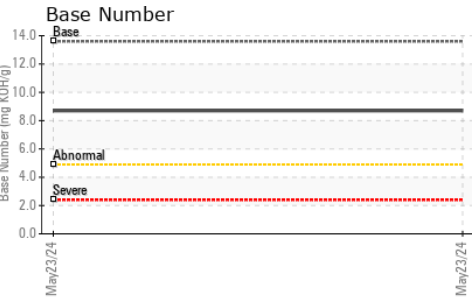
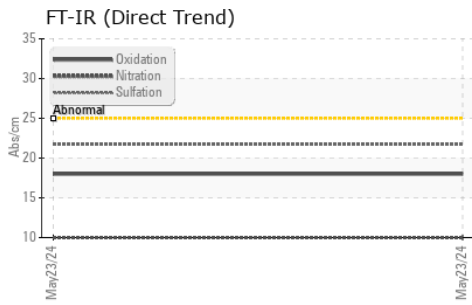
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	8	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Fuel		WC Method	>2.1	<1.0	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	10.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.21	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	>31	2	---	---
Boron	ppm	ASTM D5185m		239	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		253	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		893	---	---
Calcium	ppm	ASTM D5185m		1645	---	---
Phosphorus	ppm	ASTM D5185m		1009	---	---
Zinc	ppm	ASTM D5185m		1232	---	---
Sulfur	ppm	ASTM D5185m		3831	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.7	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0210816 **Received** : 28 May 2024
Lab Number : 06193233 **Tested** : 30 May 2024
Unique Number : 11049985 **Diagnosed** : 30 May 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

JRE - BURKEVILLE
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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)