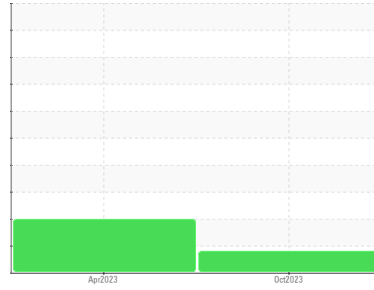


# PROBLEM SUMMARY

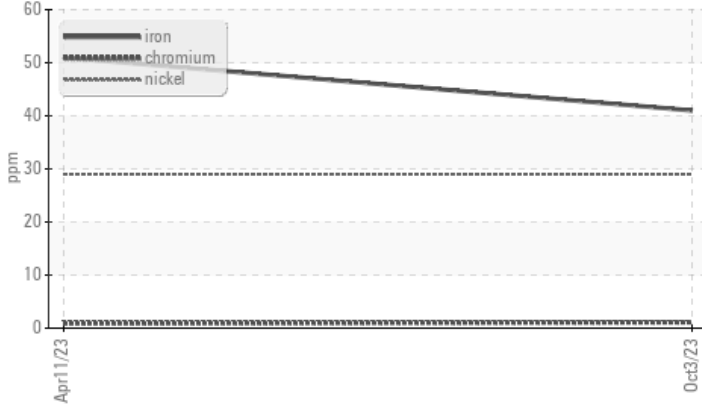
Area  
**[W46924]**  
 Machine Id  
**JOHN DEERE 850L 1T0850LXKPF437810**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

Sample Rating Trend



## COMPONENT CONDITION SUMMARY

### ▲ Ferrous Alloys



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status	ABNORMAL	ABNORMAL	---
Nickel	ppm	ASTM D5185m >5	>5
	▲ 29	▲ 29	---

Customer Id: JAMASH  
 Sample No.: JR0179197  
 Lab Number: 05968680  
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

11 Apr 2023 Diag: Jonathan Hester

### WEAR

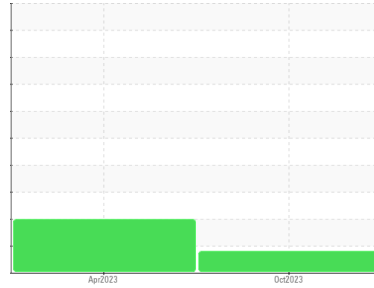


Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. The nickel level is abnormal. All other metal levels are typical for a new component breaking in. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report



# OIL ANALYSIS REPORT

**Sample Rating Trend**

**WEAR**


Area  
**[W46924]**  
 Machine Id  
**JOHN DEERE 850L 1T0850LXKPF437810**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

**DIAGNOSIS**
**▲ Recommendation**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**▲ Wear**

The nickel level is abnormal. All other metal levels are typical for a new component breaking in.

**Contamination**

There is no indication of any contamination in the oil.

**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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>JR0179197</b>	JR0166200	---
Sample Date	Client Info			<b>03 Oct 2023</b>	11 Apr 2023	---
Machine Age	hrs	Client Info		<b>946</b>	458	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	ABNORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Glycol	WC Method			<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	<b>41</b>	51	---
Chromium	ppm	ASTM D5185m	>11	<b>1</b>	<1	---
Nickel	ppm	ASTM D5185m	>5	<b>▲ 29</b>	▲ 29	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>31	<b>8</b>	2	---
Lead	ppm	ASTM D5185m	>26	<b>1</b>	2	---
Copper	ppm	ASTM D5185m	>26	<b>37</b>	▲ 113	---
Tin	ppm	ASTM D5185m	>4	<b>1</b>	3	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

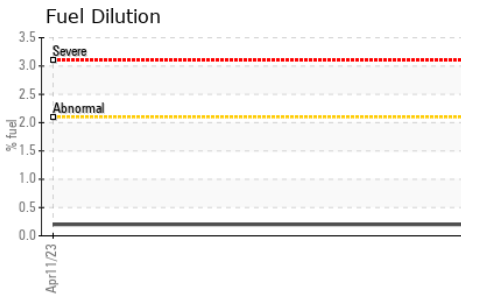
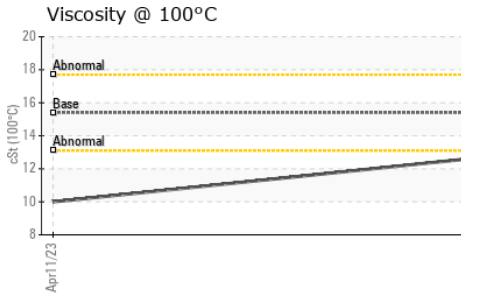
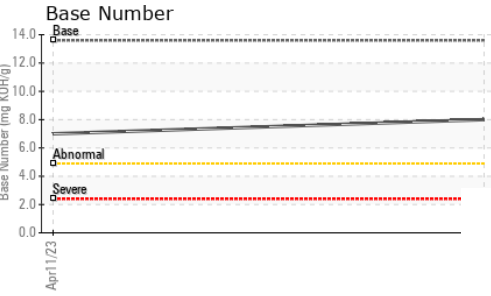
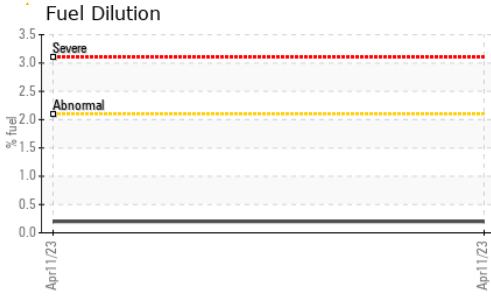
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>153</b>	126	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>257</b>	277	---
Manganese	ppm	ASTM D5185m		<b>1</b>	2	---
Magnesium	ppm	ASTM D5185m		<b>920</b>	806	---
Calcium	ppm	ASTM D5185m		<b>1496</b>	1488	---
Phosphorus	ppm	ASTM D5185m		<b>946</b>	790	---
Zinc	ppm	ASTM D5185m		<b>1170</b>	950	---
Sulfur	ppm	ASTM D5185m		<b>3088</b>	2431	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	<b>9</b>	11	---
Sodium	ppm	ASTM D5185m	>31	<b>2</b>	2	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	8	---
Fuel	%	ASTM D3524	>2.1	<b>&lt;1.0</b>	0.2	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	9.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.0</b>	23.1	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.5</b>	18.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.0</b>	7.0	---

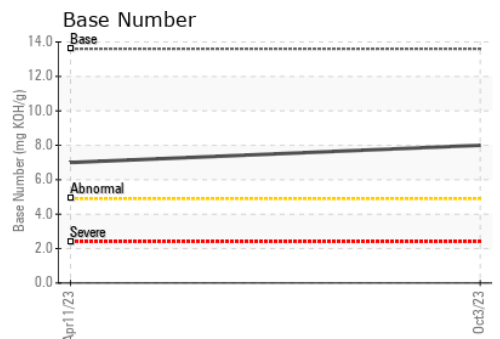
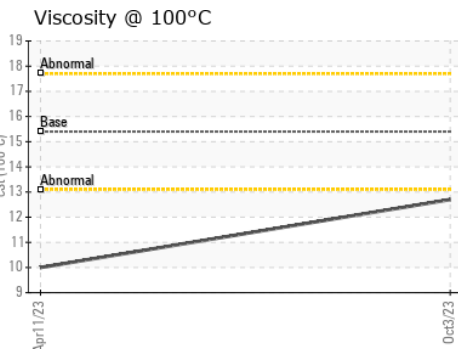
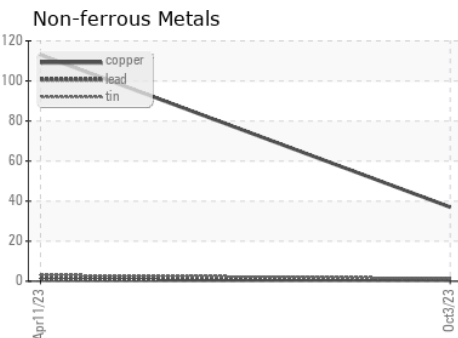
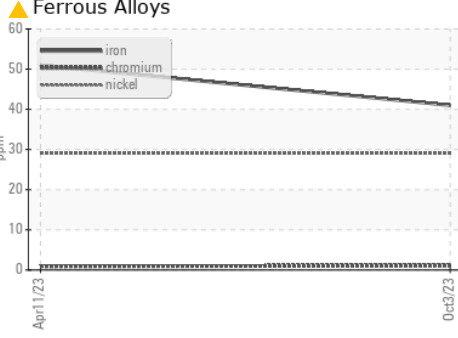
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
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	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.7	▲ 10.0

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0179197 **Received** : 04 Oct 2023  
**Lab Number** : 05968680 **Diagnosed** : 06 Oct 2023  
**Unique Number** : 10675231 **Diagnostician** : Jonathan Hester  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )  
 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)

**JRE - ASHLAND**  
 11047 LEADBETTER RD  
 ASHLAND, VA  
 US 23005  
 Contact: DAVID ZIEG  
 dzieg@jamesriverequipment.com  
 T: (804)798-6001  
 F: (804)798-0292