



WEAR	<b>SEVERE</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

**[HOWARD SHOCKEY]**

Machine Id  
**JOHN DEERE 310G C043444 (S/N T0310GX940601)**

Component  
**Rear Differential**

Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

**RECOMMENDATION**

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0221306</b>	JR0067116	---
Sample Date		Client Info		<b>12 Jul 2024</b>	10 Nov 2020	---
Machine Age	hrs	Client Info		<b>7356</b>	7081	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	---
Filter Changed		Client Info		<b>Not Changd</b>	N/A	---
Sample Status				<b>SEVERE</b>	SEVERE	---

**WEAR**

Gear wear is indicated.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>432</b>	560	---
Iron	ppm	ASTM D5185m	>500	<b>▲ 3318</b>	▲ 2256	---
Chromium	ppm	ASTM D5185m	>10	<b>▲ 26</b>	▲ 19	---
Nickel	ppm	ASTM D5185m	>10	<b>10</b>	7	---
Titanium	ppm	ASTM D5185m		<b>0</b>	1	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>3</b>	3	---
Lead	ppm	ASTM D5185m	>25	<b>2</b>	5	---
Copper	ppm	ASTM D5185m	>100	<b>146</b>	▲ 114	---
Tin	ppm	ASTM D5185m	>10	<b>3</b>	4	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

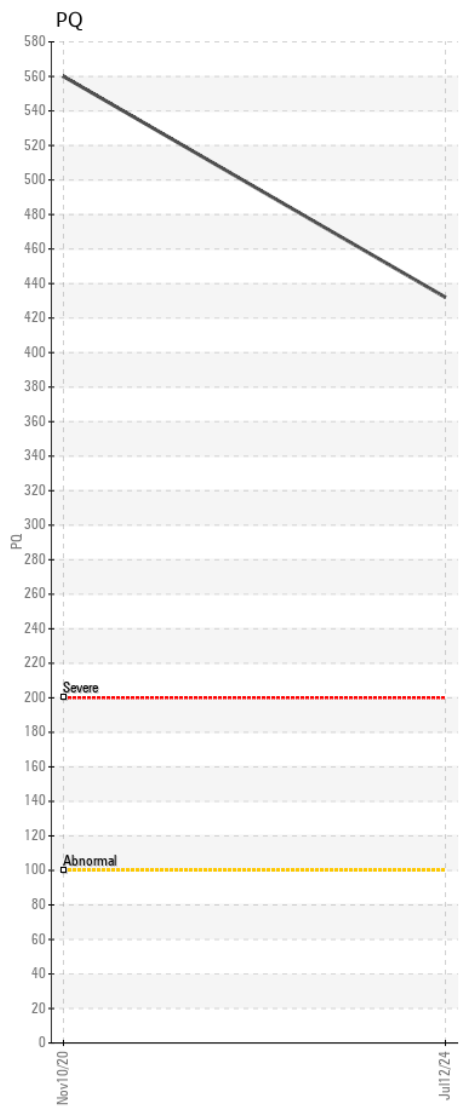
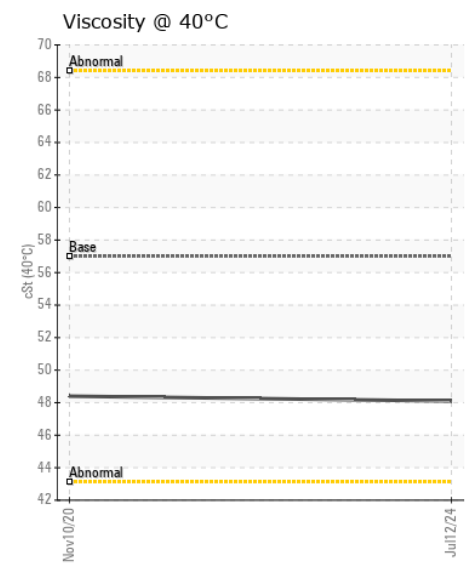
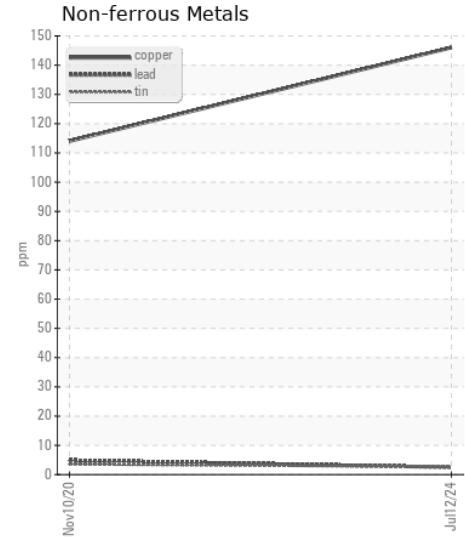
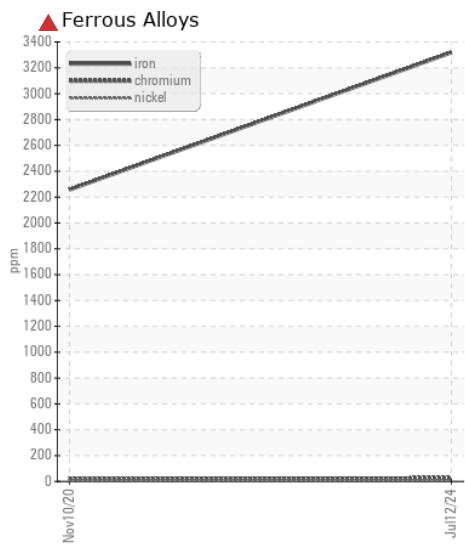
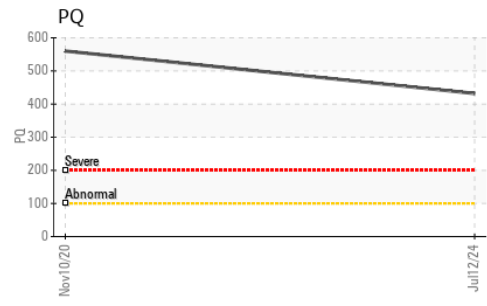
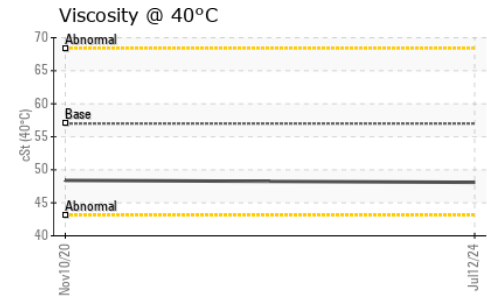
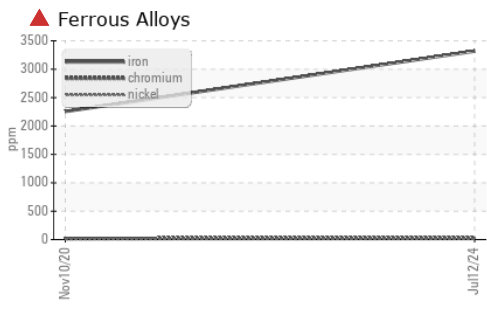
There is no indication of any contamination in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Silicon	ppm	ASTM D5185m	>75	<b>43</b>	26	---
Potassium	ppm	ASTM D5185m	>20	<b>25</b>	17	---
Water		WC Method	>.2	<b>NEG</b>	NEG	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>.2	<b>NEG</b>	NEG	---

**FLUID CONDITION**

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sodium	ppm	ASTM D5185m		<b>10</b>	10	---
Boron	ppm	ASTM D5185m	6	<b>8</b>	<1	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	1	---
Molybdenum	ppm	ASTM D5185m	0	<b>2</b>	0	---
Manganese	ppm	ASTM D5185m		<b>24</b>	17	---
Magnesium	ppm	ASTM D5185m	145	<b>92</b>	88	---
Calcium	ppm	ASTM D5185m	3570	<b>3358</b>	3292	---
Phosphorus	ppm	ASTM D5185m	1290	<b>880</b>	927	---
Zinc	ppm	ASTM D5185m	1640	<b>1109</b>	1080	---
Sulfur	ppm	ASTM D5185m		<b>3595</b>	3021	---
Visc @ 40°C	cSt	ASTM D445	57.0	<b>48.1</b>	48.4	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0221306 **Received** : 16 Jul 2024  
**Lab Number** : 06238111 **Tested** : 17 Jul 2024  
**Unique Number** : 11126945 **Diagnosed** : 18 Jul 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - STEPHENSON**  
 245 YARDMASTER COURT  
 STEPHENSON, VA  
 US 22656-1761  
 Contact: PHIL DAUGHERTY  
 pdaugherty@jamesriverequipment.com

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)