



**James River
Equipment**

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXCNF714251
Component
Center Axle
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0190895	JR0186459	---
Sample Date		Client Info		01 Dec 2023	08 Sep 2023	---
Machine Age	hrs	Client Info		2020	1523	---
Oil Age	hrs	Client Info		0	1523	---
Filter Age	hrs	Client Info		0	1523	---
Oil Changed		Client Info		Changed	Not Changed	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

The copper level is abnormal. All other component wear rates are normal.

PQ		ASTM D8184		188	145	---
Iron	ppm	ASTM D5185m	>1501	169	180	---
Chromium	ppm	ASTM D5185m	>11	2	2	---
Nickel	ppm	ASTM D5185m	>10	2	2	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>21	4	2	---
Lead	ppm	ASTM D5185m	>51	27	24	---
Copper	ppm	ASTM D5185m	>101	▲ 134	▲ 152	---
Tin	ppm	ASTM D5185m	>10	7	6	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	MODER	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

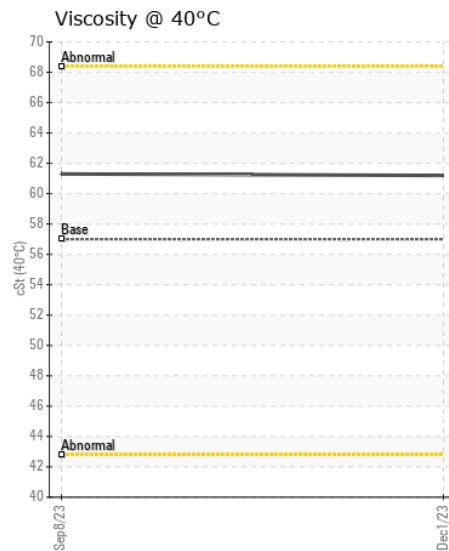
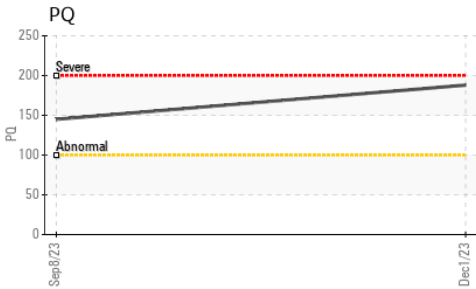
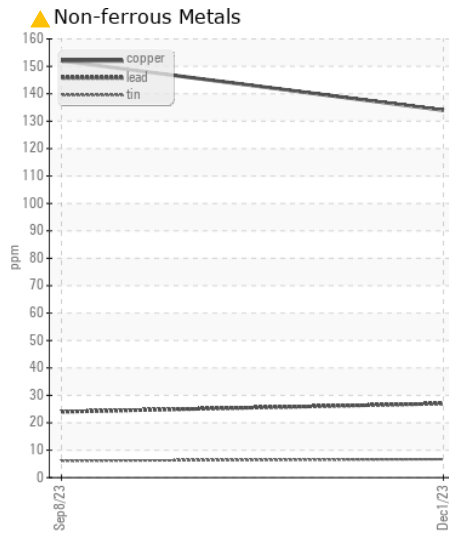
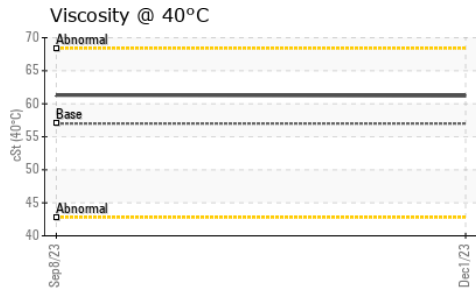
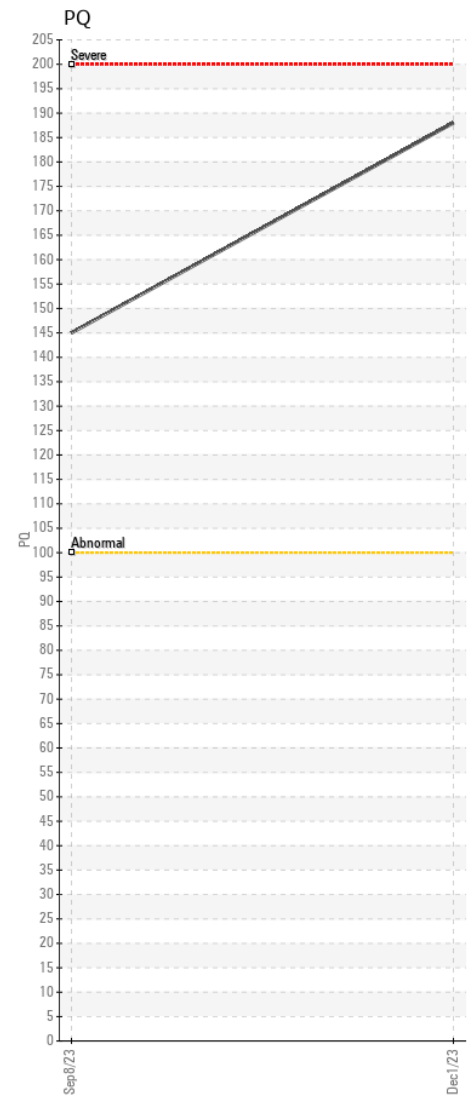
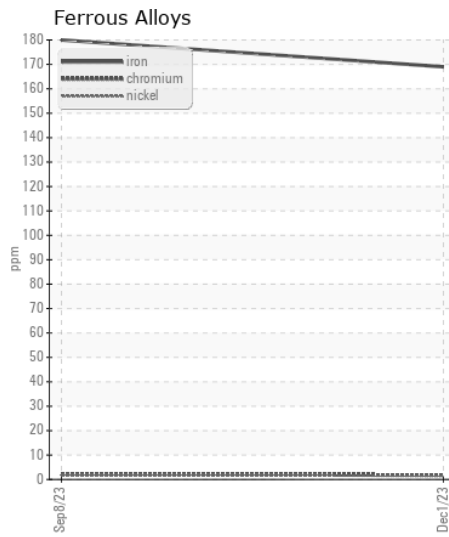
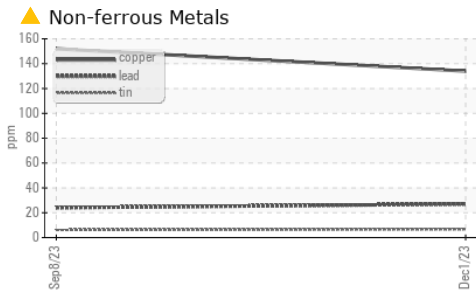
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>31	14	14	---
Potassium	ppm	ASTM D5185m	>20	3	3	---
Water		WC Method	>0.1	NEG	NEG	---
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	>0.1	NEG	NEG	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>51	18	22	---
Boron	ppm	ASTM D5185m	6	104	99	---
Barium	ppm	ASTM D5185m	0	1	3	---
Molybdenum	ppm	ASTM D5185m	0	0	0	---
Manganese	ppm	ASTM D5185m		6	5	---
Magnesium	ppm	ASTM D5185m	145	21	26	---
Calcium	ppm	ASTM D5185m	3570	2887	3429	---
Phosphorus	ppm	ASTM D5185m	1290	982	1107	---
Zinc	ppm	ASTM D5185m	1640	1185	1387	---
Sulfur	ppm	ASTM D5185m		2939	3891	---
Visc @ 40°C	cSt	ASTM D445	57.0	61.2	61.3	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0190895 **Received** : 06 Dec 2023
Lab Number : 06026704 **Tested** : 08 Dec 2023
Unique Number : 10776495 **Diagnosed** : 08 Dec 2023 - Jonathan Hester
Test Package : CONST (Additional Tests: PQ)

JRE - GARNER
 4161 AUBURN CHURCH RD
 GARNER, NC
 US 27529

Contact: RALEIGH SHOP
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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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