



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXCMF712103
Component
Front Axle
Fluid
JOHN DEERE HY-GARD HYDRAULIC/RANSMISSION (--- GAL)

RECOMMENDATION

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		JR0212988	JR0190557	---
Sample Date		Client Info		11 Apr 2024	12 Nov 2023	---
Machine Age	hrs	Client Info		1533	1533	---
Oil Age	hrs	Client Info		1533	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changed	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

PQ		ASTM D8184		117	162	---
Iron	ppm	ASTM D5185m	>1501	263	286	---
Chromium	ppm	ASTM D5185m	>11	1	<1	---
Nickel	ppm	ASTM D5185m	>10	3	4	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>21	2	1	---
Lead	ppm	ASTM D5185m	>51	<1	2	---
Copper	ppm	ASTM D5185m	>101	181	158	---
Tin	ppm	ASTM D5185m	>10	6	5	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

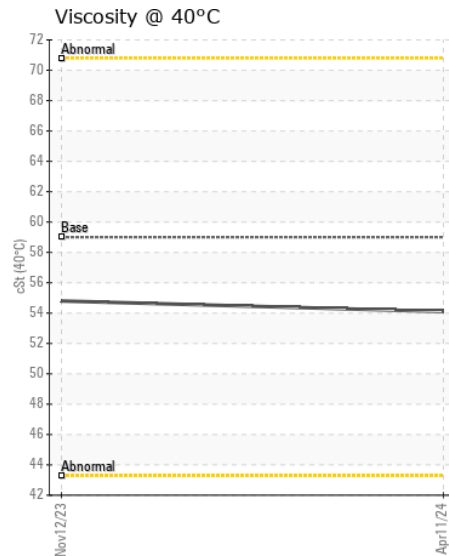
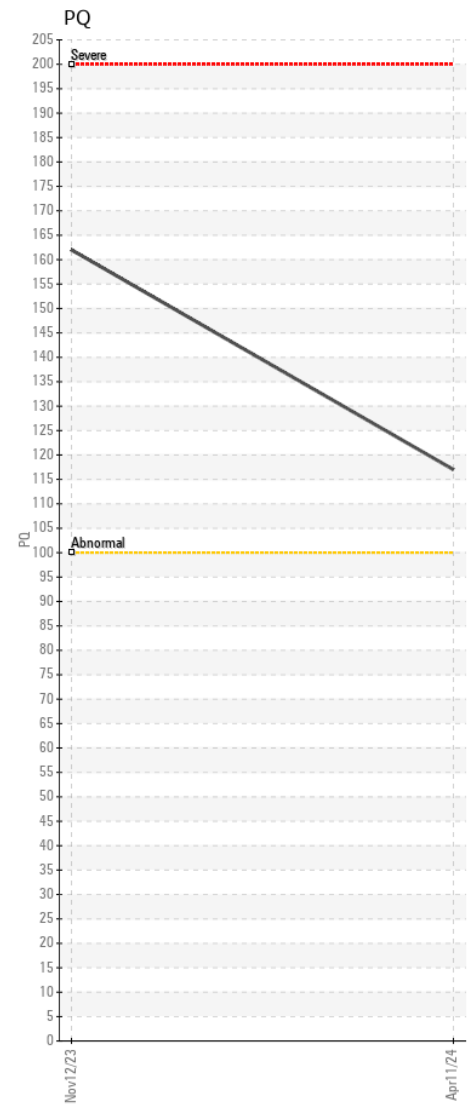
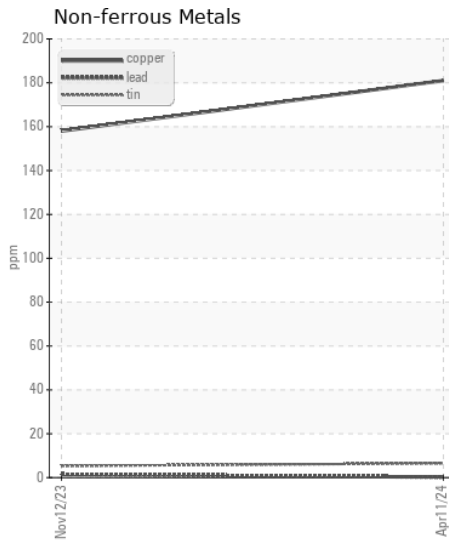
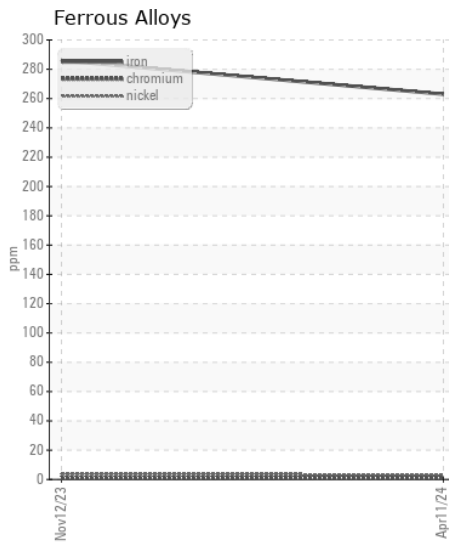
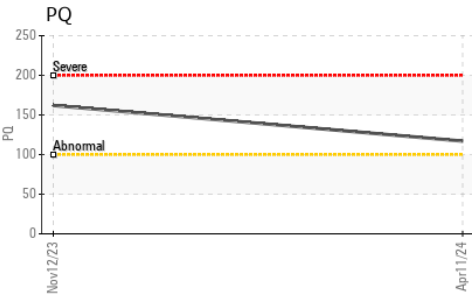
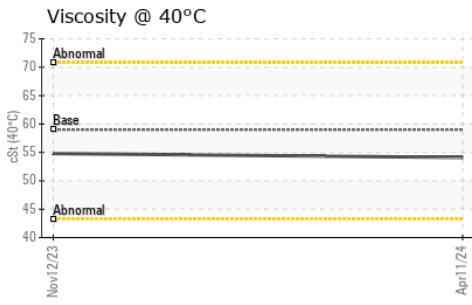
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>31	12	11	---
Potassium	ppm	ASTM D5185m	>20	2	0	---
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	8	7	---
Boron	ppm	ASTM D5185m		29	26	---
Barium	ppm	ASTM D5185m		<1	0	---
Molybdenum	ppm	ASTM D5185m		0	0	---
Manganese	ppm	ASTM D5185m		23	22	---
Magnesium	ppm	ASTM D5185m		77	76	---
Calcium	ppm	ASTM D5185m		3278	3152	---
Phosphorus	ppm	ASTM D5185m		1103	1024	---
Zinc	ppm	ASTM D5185m		1269	1211	---
Sulfur	ppm	ASTM D5185m		4427	3362	---
Visc @ 40°C	cSt	ASTM D445	59	54.1	54.8	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0212988

Lab Number : 06152230

Unique Number : 10982308

Test Package : CONST (Additional Tests: PQ)

Received : 17 Apr 2024

Tested : 18 Apr 2024

Diagnosed : 22 Apr 2024 - Don Baldrige

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)