



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Area
JRE-CHARLOTTE
Machine Id
JOHN DEERE 310 P 1DW310PAEPFB06548
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0192669	JR0177510	---
Sample Date		Client Info		16 Dec 2023	21 Aug 2023	---
Machine Age	hrs	Client Info		1253	558	---
Oil Age	hrs	Client Info		1253	558	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Chngd	Not Chngd	---
Filter Changed		Client Info		Not Chngd	Not Chngd	---
Sample Status				SEVERE	NORMAL	---

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	<1	1	---
Chromium	ppm	ASTM D5185m	>10	0	0	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	0	<1	---
Lead	ppm	ASTM D5185m	>10	0	0	---
Copper	ppm	ASTM D5185m	>75	0	<1	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

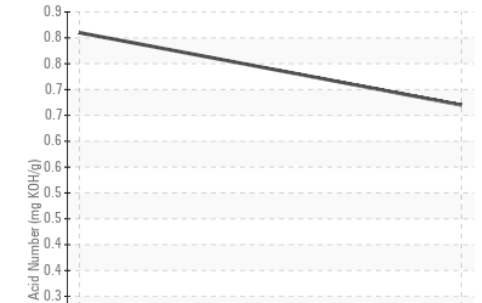
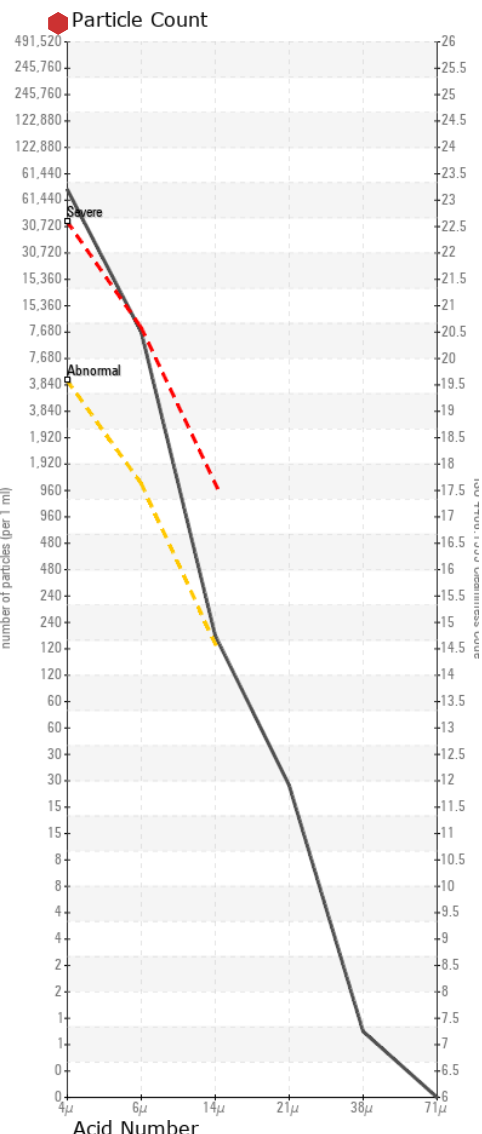
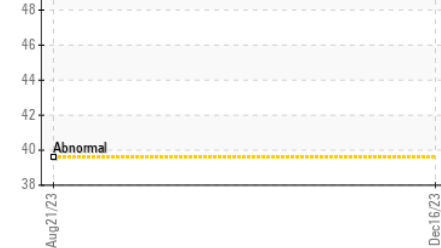
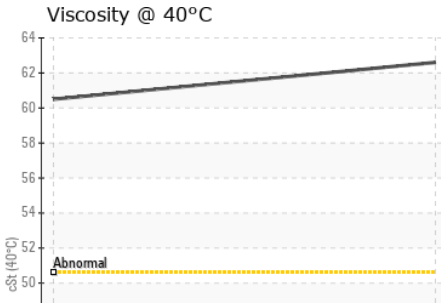
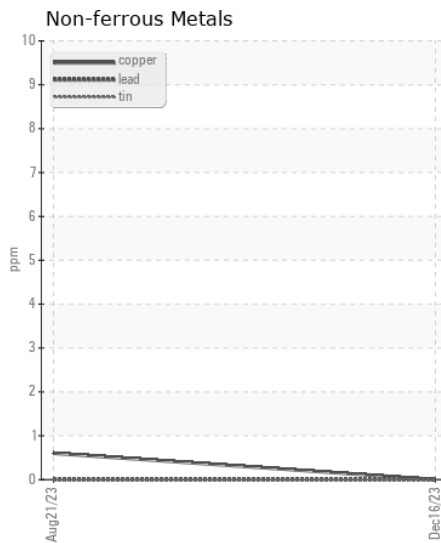
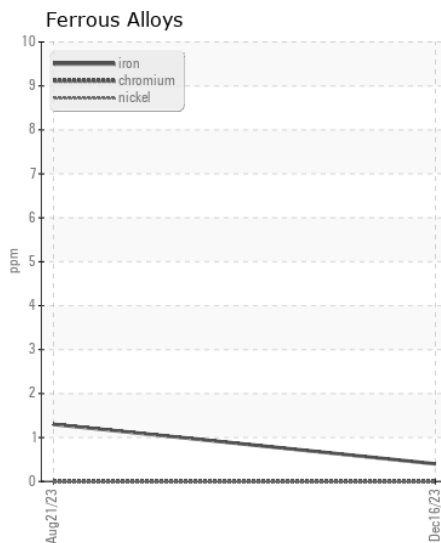
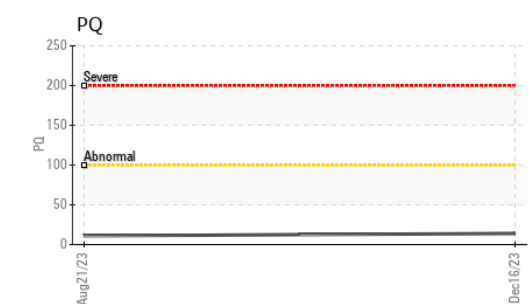
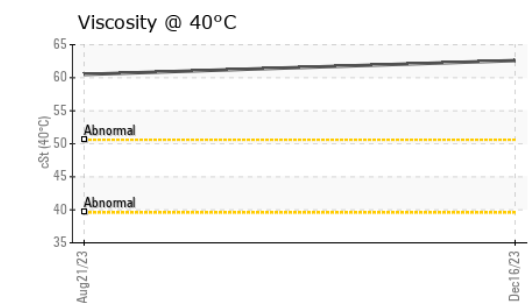
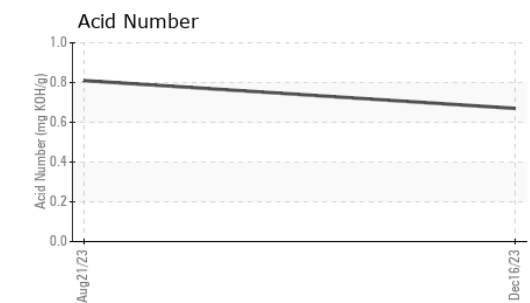
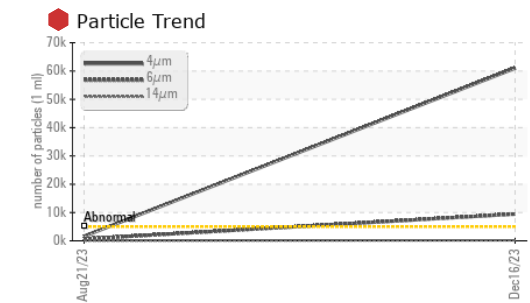
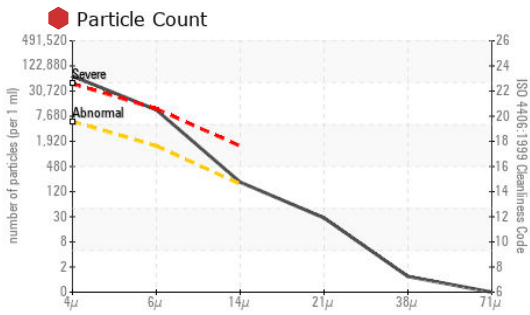
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<1	1	---
Potassium	ppm	ASTM D5185m	>20	0	4	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	61016	1621	---
Particles >6µm		ASTM D7647	>1300	9456	665	---
Particles >14µm		ASTM D7647	>160	178	87	---
Particles >21µm		ASTM D7647	>40	25	27	---
Particles >38µm		ASTM D7647	>10	1	1	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	23/20/15	18/17/14	---
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 AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		0	1	---
Boron	ppm	ASTM D5185m		4	0	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		4	0	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		21	<1	---
Calcium	ppm	ASTM D5185m		135	96	---
Phosphorus	ppm	ASTM D5185m		707	601	---
Zinc	ppm	ASTM D5185m		876	844	---
Sulfur	ppm	ASTM D5185m		1704	1876	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.67	0.81	---
Visc @ 40°C	cSt	ASTM D445		62.6	60.5	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0192669 **Received** : 12 Jan 2024
Lab Number : 06059199 **Diagnosed** : 15 Jan 2024
Unique Number : 10830581 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: PQ)

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Certificate L2367
 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)