



WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310SG T0310SG959732
Component
Rear Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- QTS)

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		JR0218330	---	---
Sample Date		Client Info		16 Jun 2024	---	---
Machine Age	hrs	Client Info		3337	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---

WEAR

Bearing and/or gear wear is indicated.

PQ		ASTM D8184		289	---	---
Iron	ppm	ASTM D5185m	>500	▲ 2046	---	---
Chromium	ppm	ASTM D5185m	>10	▲ 16	---	---
Nickel	ppm	ASTM D5185m	>10	▲ 16	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	17	---	---
Lead	ppm	ASTM D5185m	>25	8	---	---
Copper	ppm	ASTM D5185m	>100	▲ 193	---	---
Tin	ppm	ASTM D5185m	>10	▲ 10	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

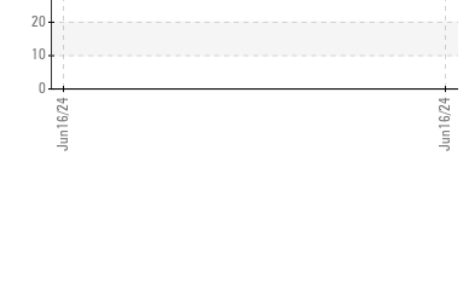
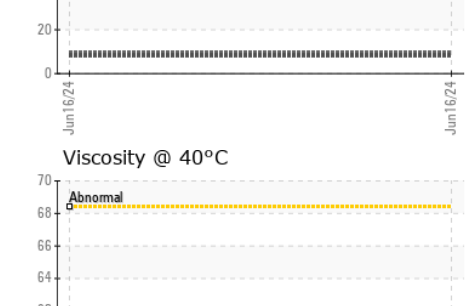
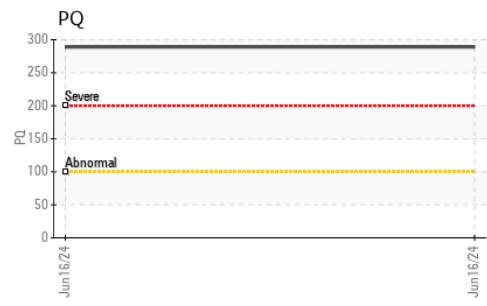
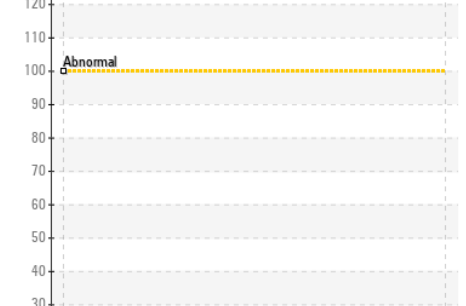
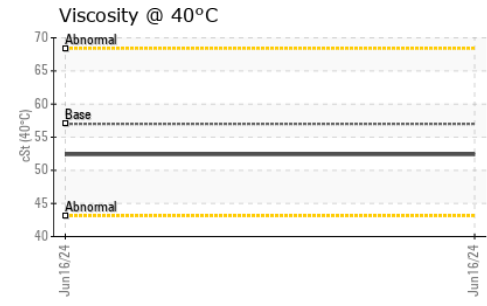
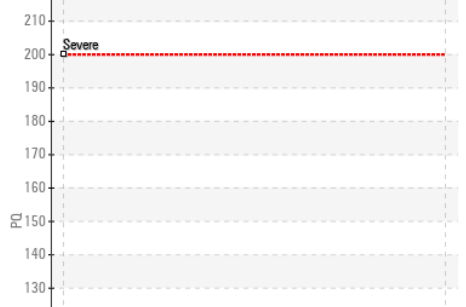
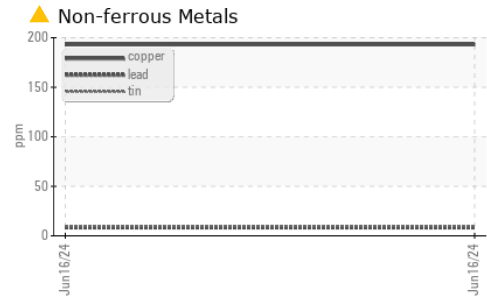
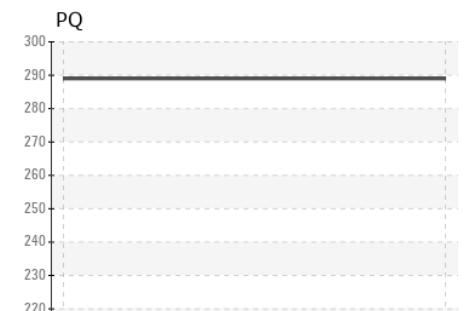
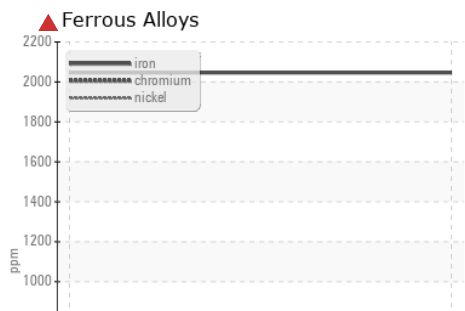
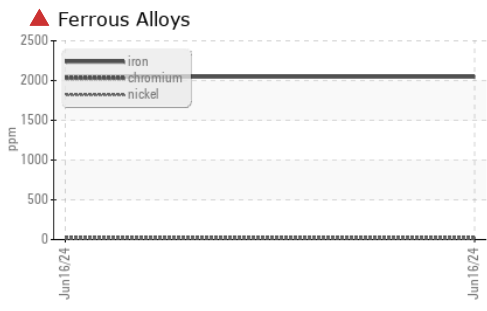
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	67	---	---
Potassium	ppm	ASTM D5185m	>20	8	---	---
Water		WC Method	>.2	NEG	---	---
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	>.2	NEG	---	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		17	---	---
Boron	ppm	ASTM D5185m	6	3	---	---
Barium	ppm	ASTM D5185m	0	6	---	---
Molybdenum	ppm	ASTM D5185m	0	2	---	---
Manganese	ppm	ASTM D5185m		20	---	---
Magnesium	ppm	ASTM D5185m	145	91	---	---
Calcium	ppm	ASTM D5185m	3570	3009	---	---
Phosphorus	ppm	ASTM D5185m	1290	949	---	---
Zinc	ppm	ASTM D5185m	1640	952	---	---
Sulfur	ppm	ASTM D5185m		3765	---	---
Visc @ 40°C	cSt	ASTM D445	57.0	52.4	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218330 **Received** : 14 Jun 2024
Lab Number : 06210951 **Tested** : 18 Jun 2024
Unique Number : 11083815 **Diagnosed** : 18 Jun 2024 - Sean Felton
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)