



Machine Id
HITACHI HCMJAG60C00061687
 Component
Left Final Drive
 Fluid
JOHN DEERE GL-5 80W90 (--- QTS)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

The iron, chrome and nickel levels are severe. Gear wear is indicated.

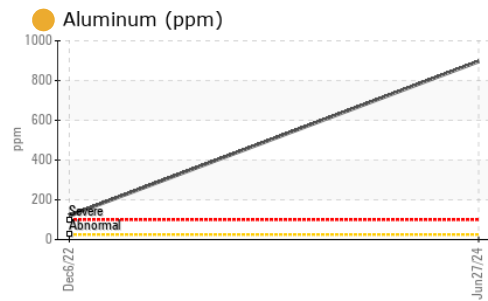
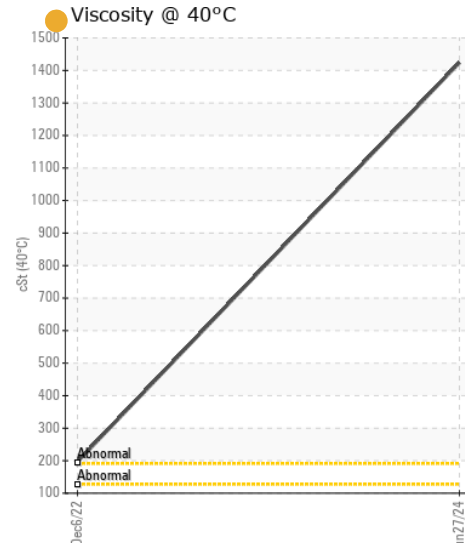
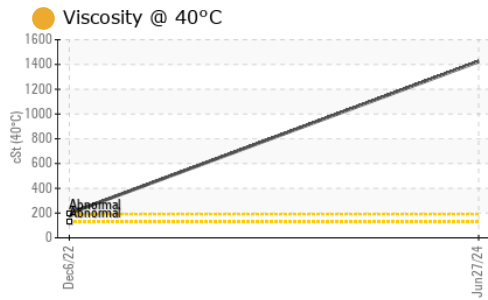
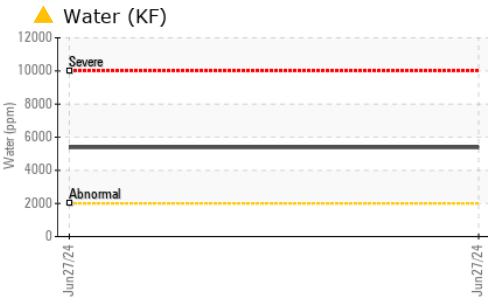
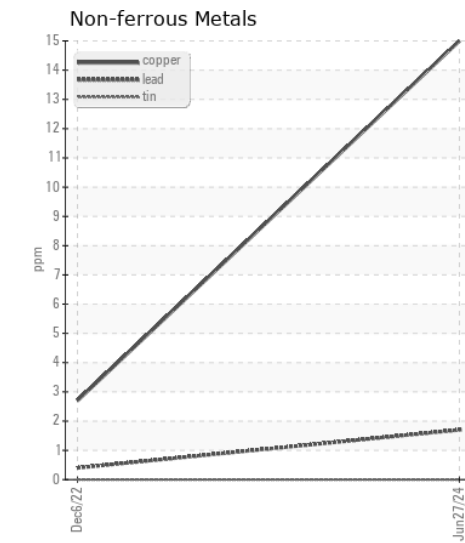
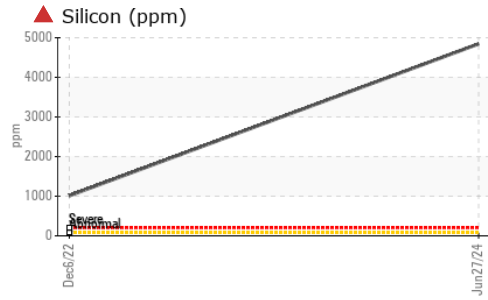
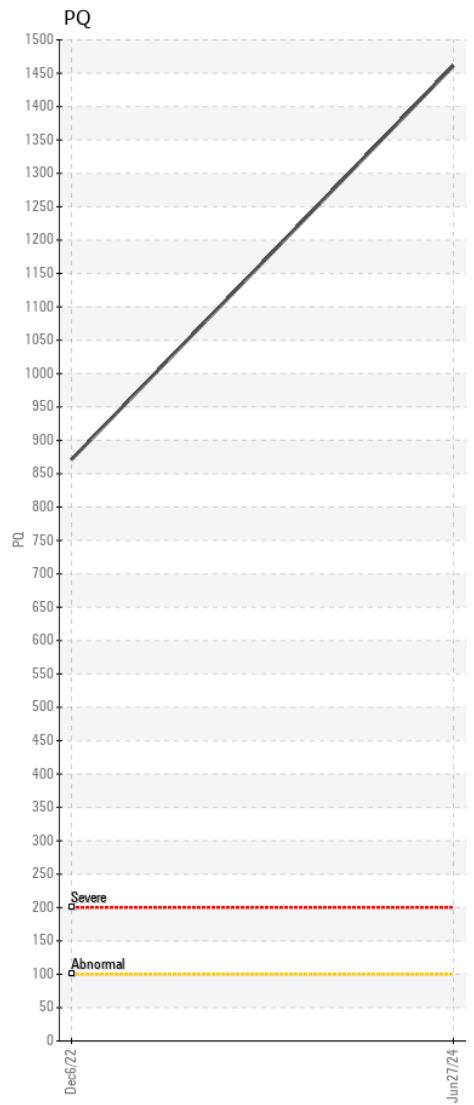
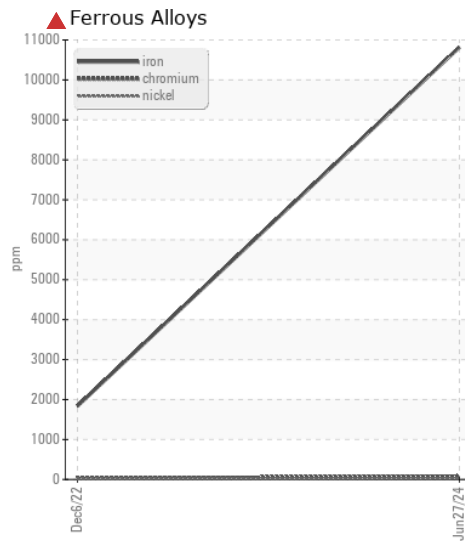
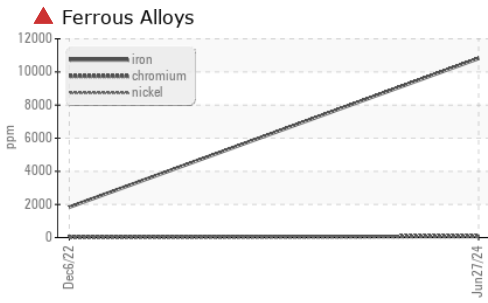
CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a moderate concentration of water present in the oil.

FLUID CONDITION

The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0224470	JR0146930	---
Sample Date		Client Info		27 Jun 2024	06 Dec 2022	---
Machine Age	hrs	Client Info		4195	1958	---
Oil Age	hrs	Client Info		0	1958	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				SEVERE	SEVERE	---
PQ		ASTM D8184		1461	871	---
Iron	ppm	ASTM D5185m	>500	▲ 10817	▲ 1837	---
Chromium	ppm	ASTM D5185m	>10	▲ 82	▲ 23	---
Nickel	ppm	ASTM D5185m	>10	▲ 26	6	---
Titanium	ppm	ASTM D5185m		69	16	---
Silver	ppm	ASTM D5185m		<1	0	---
Aluminum	ppm	ASTM D5185m	>25	● 896	● 120	---
Lead	ppm	ASTM D5185m	>25	2	<1	---
Copper	ppm	ASTM D5185m	>50	15	3	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		3	<1	---
White Metal	scalar	*Visual	NONE	NONE	MODER	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>75	▲ 4845	▲ 1012	---
Potassium	ppm	ASTM D5185m	>20	232	55	---
Water	%	ASTM D6304	>0.2	▲ 0.538	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 5380	---	---
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	>0.2	▲ 0.2%	NEG	---
Sodium	ppm	ASTM D5185m		52	7	---
Boron	ppm	ASTM D5185m		53	54	---
Barium	ppm	ASTM D5185m		6	9	---
Molybdenum	ppm	ASTM D5185m		8	1	---
Manganese	ppm	ASTM D5185m		88	26	---
Magnesium	ppm	ASTM D5185m		110	22	---
Calcium	ppm	ASTM D5185m		198	64	---
Phosphorus	ppm	ASTM D5185m		551	479	---
Zinc	ppm	ASTM D5185m		14	26	---
Sulfur	ppm	ASTM D5185m		93065	19865	---
Visc @ 40°C	cSt	ASTM D445		● 1424	197	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0224470 **Received** : 28 Jun 2024
Lab Number : 06223687 **Tested** : 01 Jul 2024
Unique Number : 11101884 **Diagnosed** : 01 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: KF, PQ)

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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)