



Area  
**[05W48095]**

Machine Id  
**HITACHI ZX670 HCMJBK60L00060017**

Component  
**Left Swing Drive Gear Case**

Fluid  
**JOHN DEERE GL-5 80W90 (2 GAL)**

### RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: Check for water )

### WEAR

Gear wear is indicated.

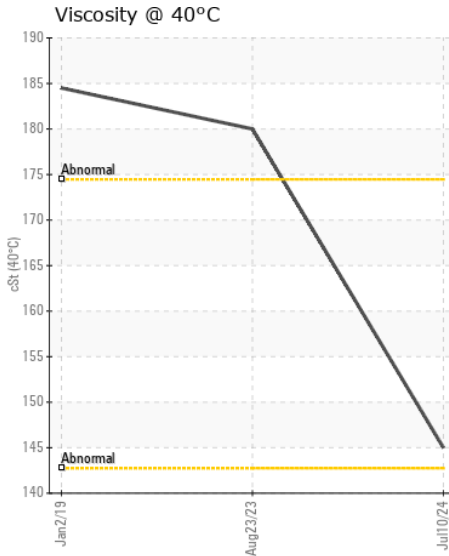
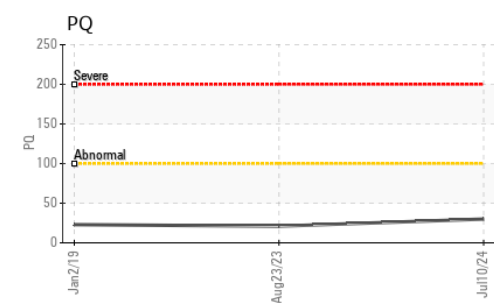
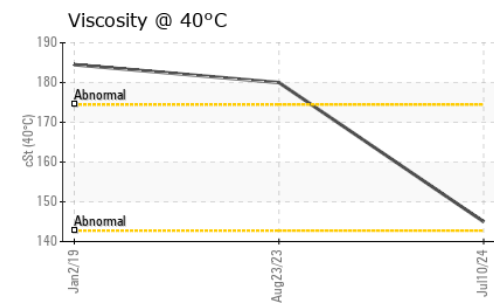
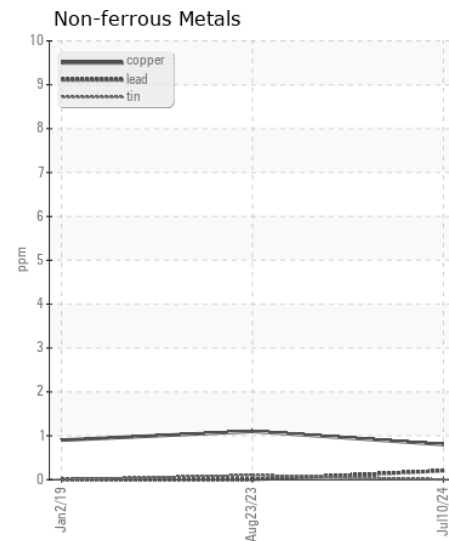
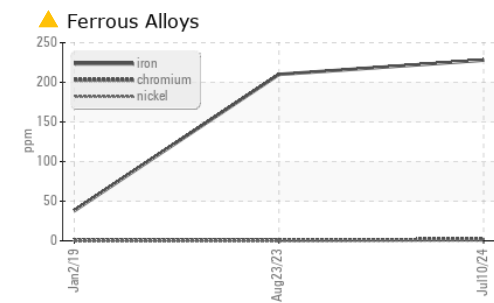
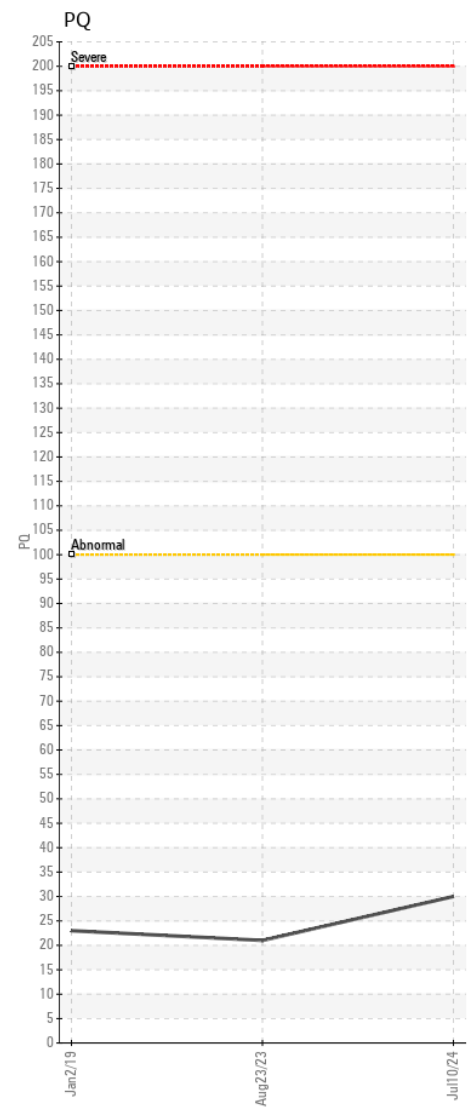
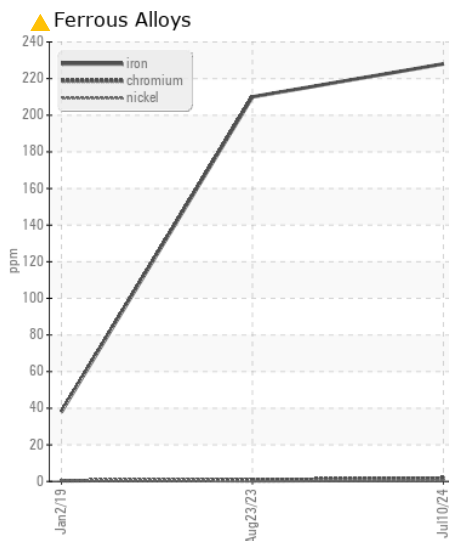
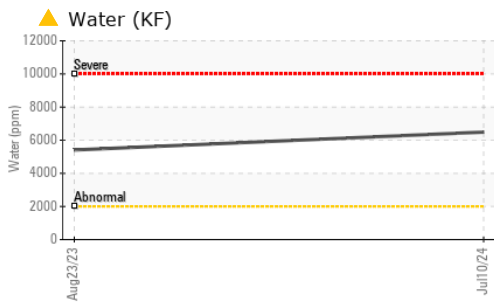
### CONTAMINATION

Appearance is milky. There is a moderate concentration of water present in the oil.

### FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0226668</b>	JR0169919	JRMC470090
Sample Date		Client Info		<b>10 Jul 2024</b>	23 Aug 2023	02 Jan 2019
Machine Age	hrs	Client Info		<b>5933</b>	5607	1004
Oil Age	hrs	Client Info		<b>326</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL
PQ		ASTM D8184		<b>30</b>	21	23
Iron	ppm	ASTM D5185m	>200	<b>▲ 228</b>	▲ 210	38
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m		<b>2</b>	3	<1
Lead	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m		<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silicon	ppm	ASTM D5185m		<b>13</b>	26	14
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	3
Water	%	ASTM D6304	>0.2	<b>▲ 0.649</b>	▲ 0.541	---
ppm Water	ppm	ASTM D6304	>2000	<b>▲ 6490</b>	▲ 5410	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>● MILKY</b>	● MILKY	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>▲ 0.2%</b>	0.2%	NEG
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	3	2
Boron	ppm	ASTM D5185m		<b>19</b>	46	35
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	4
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>4</b>	5	<1
Magnesium	ppm	ASTM D5185m		<b>4</b>	3	1
Calcium	ppm	ASTM D5185m		<b>7</b>	36	18
Phosphorus	ppm	ASTM D5185m		<b>419</b>	522	447
Zinc	ppm	ASTM D5185m		<b>32</b>	40	35
Sulfur	ppm	ASTM D5185m		<b>17248</b>	17636	12401
Visc @ 40°C	cSt	ASTM D445		<b>145</b>	180	184.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0226668 **Received** : 15 Jul 2024  
**Lab Number** : 06236404 **Tested** : 16 Jul 2024  
**Unique Number** : 11125238 **Diagnosed** : 17 Jul 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: KF, PQ )

**JRE - MANASSAS PARK**  
 9107 OWENS DRIVE  
 MANASSAS PARK, VA  
 US 20111  
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 F: (703)631-4715

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)