



Machine Id
HITACHI 470 HCMJAA70C00030815
 Component
Left Final Drive
 Fluid
JOHN DEERE GL-5 80W90 (--- GAL)

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

Gear wear is indicated.

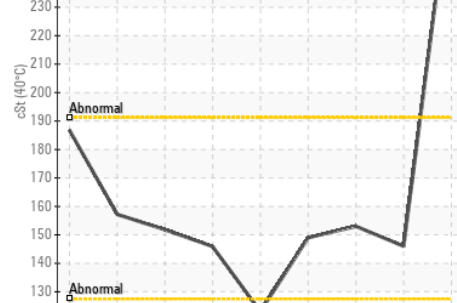
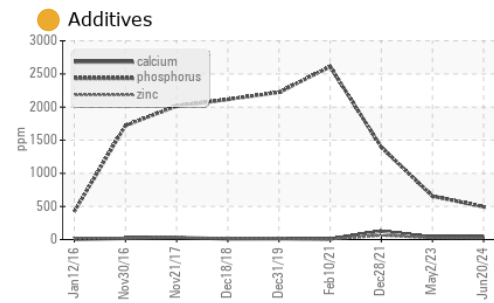
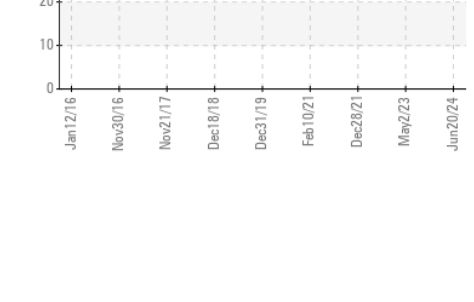
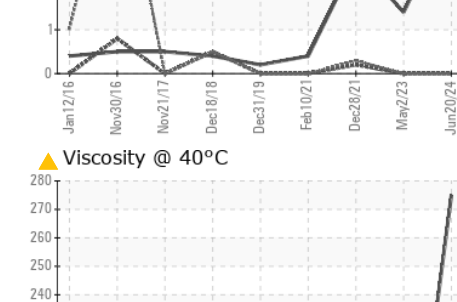
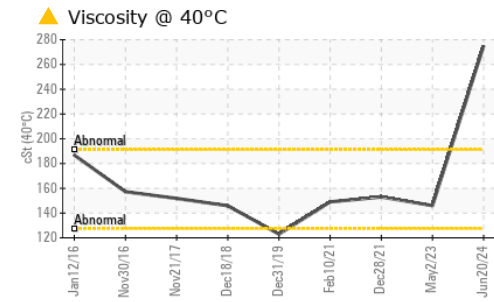
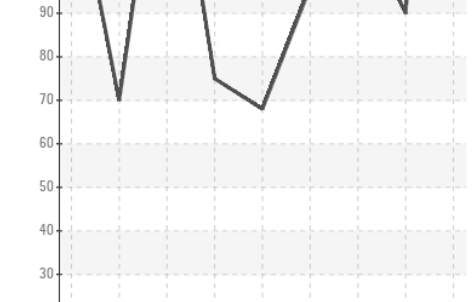
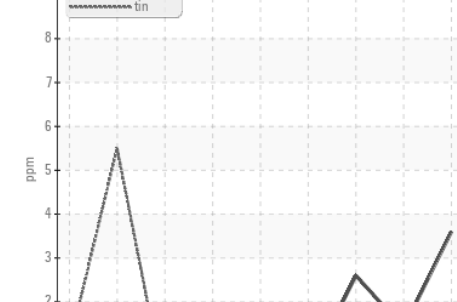
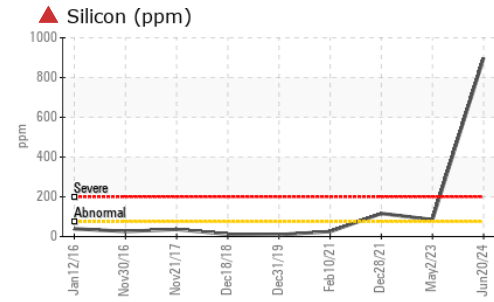
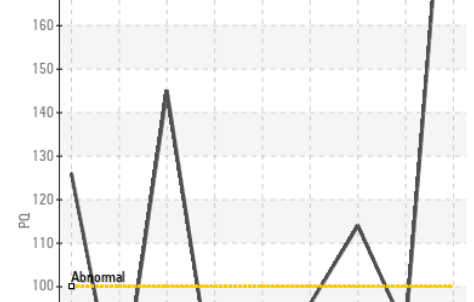
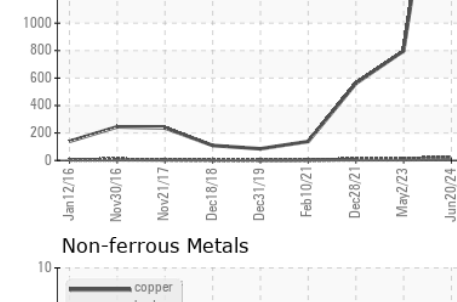
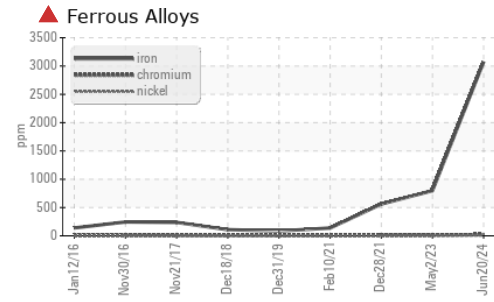
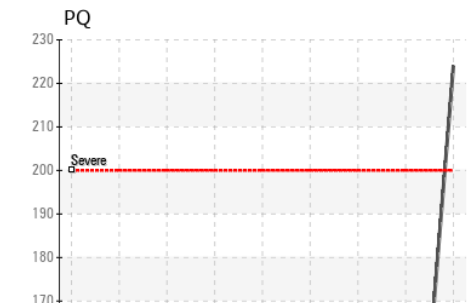
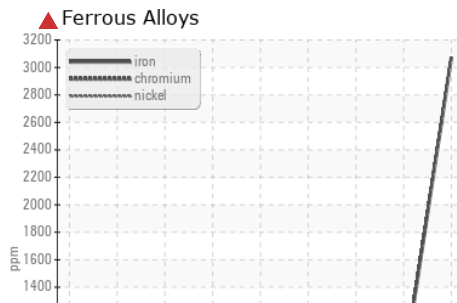
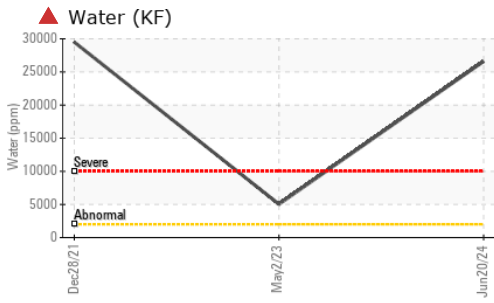
CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a high 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		JR0212024	JR0147661	JR0107450
Sample Date		Client Info		20 Jun 2024	02 May 2023	28 Dec 2021
Machine Age	hrs	Client Info		17963	15979	13989
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	SEVERE
PQ		ASTM D8184		224	90	114
Iron	ppm	ASTM D5185m	>500	▲ 3073	▲ 798	▲ 561
Chromium	ppm	ASTM D5185m	>10	▲ 23	10	8
Nickel	ppm	ASTM D5185m	>10	3	1	<1
Titanium	ppm	ASTM D5185m		10	<1	1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	● 175	● 14	● 24
Lead	ppm	ASTM D5185m	>25	0	0	<1
Copper	ppm	ASTM D5185m	>50	4	1	3
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>75	▲ 898	▲ 85	▲ 116
Potassium	ppm	ASTM D5185m	>20	55	9	14
Water	%	ASTM D6304	>0.2	▲ 2.66	▲ 0.504	▲ 2.95
ppm Water	ppm	ASTM D6304	>2000	▲ 26600	▲ 5040	▲ 29500
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	● HAZY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	▲ 0.2%	▲ 0.2%
Sodium	ppm	ASTM D5185m		15	2	7
Boron	ppm	ASTM D5185m		14	27	124
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	<1	<1
Manganese	ppm	ASTM D5185m		22	7	6
Magnesium	ppm	ASTM D5185m		10	4	4
Calcium	ppm	ASTM D5185m		● 46	36	126
Phosphorus	ppm	ASTM D5185m		● 495	656	1395
Zinc	ppm	ASTM D5185m		● 20	23	62
Sulfur	ppm	ASTM D5185m		26119	31695	26758
Visc @ 40°C	cSt	ASTM D445		▲ 275	146	153



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0212024 **Received** : 25 Jun 2024
Lab Number : 06219962 **Tested** : 26 Jun 2024
Unique Number : 11098159 **Diagnosed** : 26 Jun 2024 - Sean Felton
Test Package : CONST (Additional Tests: KF, PQ)

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)

JRE - ASHLAND
 11047 LEADBETTER RD
 ASHLAND, VA
 US 23005
 Contact: DAVID ZIEG
 dzieg@jamesriverequipment.com
 T: (804)798-6001
 F: (804)798-0292