



Area
[05W46063]
Machine Id
HITACHI PM061149
Component
Right Final Drive
Fluid
JOHN DEERE GL-5 80W90 (9 QTS)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. 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.

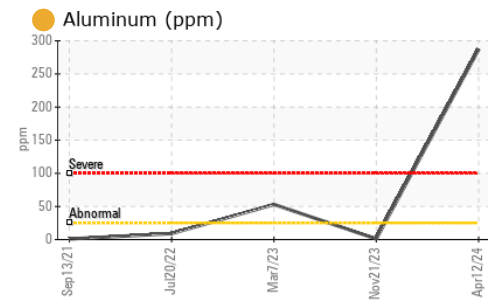
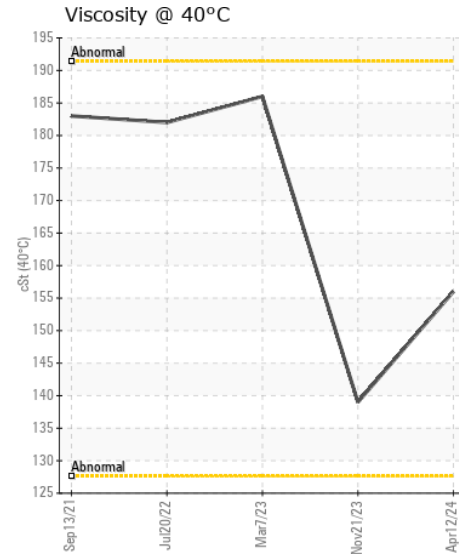
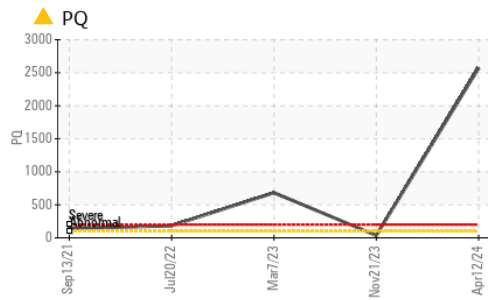
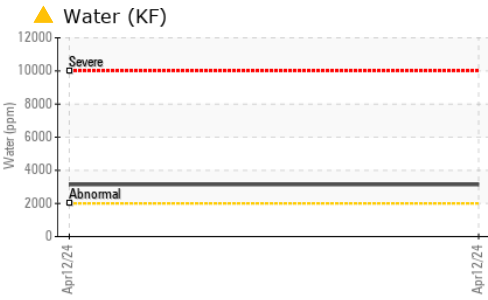
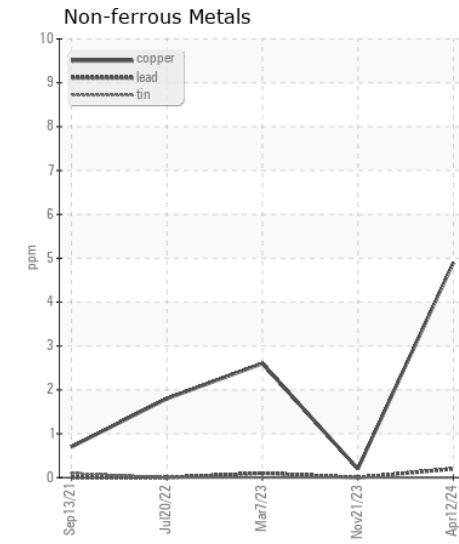
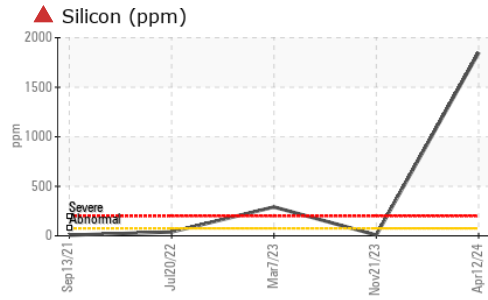
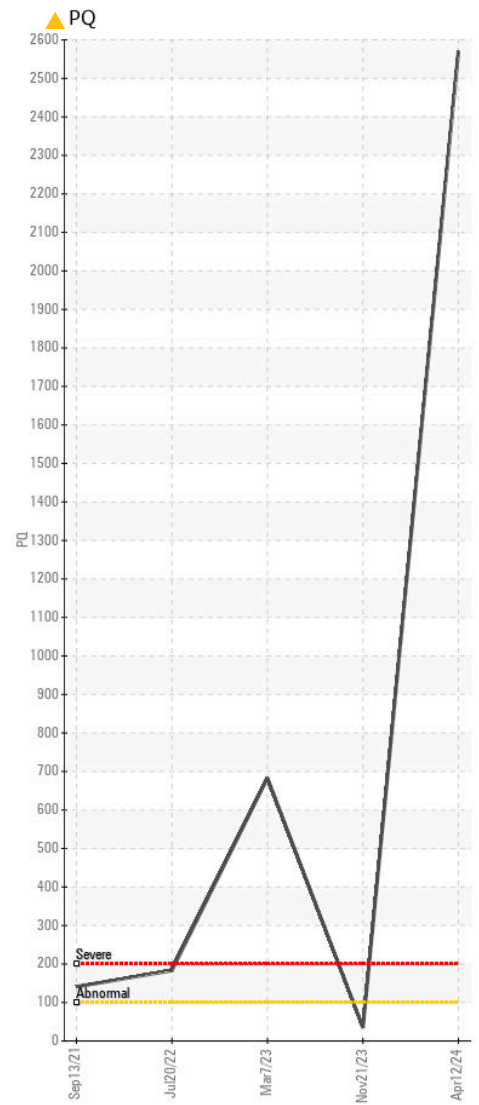
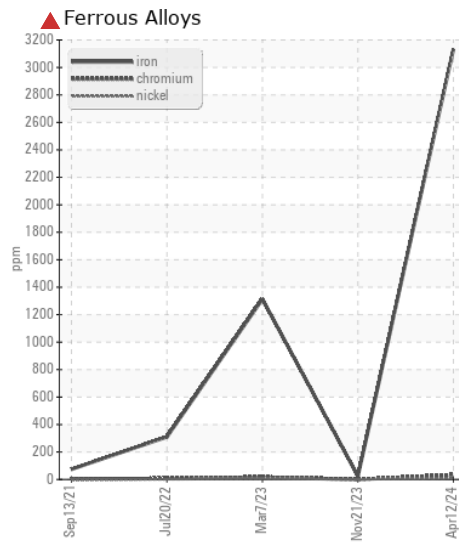
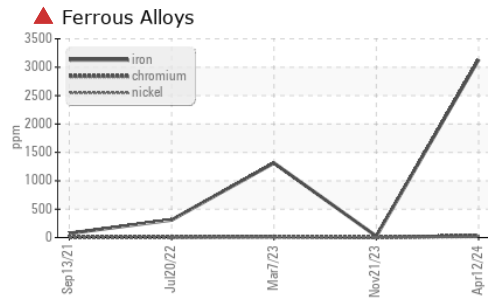
CONTAMINATION

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

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0211284	JR0196180	JR0163006
Sample Date		Client Info		12 Apr 2024	21 Nov 2023	07 Mar 2023
Machine Age	hrs	Client Info		3018	2475	1936
Oil Age	hrs	Client Info		1000	539	1936
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		N/A	None	N/A
Sample Status				SEVERE	NORMAL	ABNORMAL
PQ		ASTM D8184		▲ 2570	35	683
Iron	ppm	ASTM D5185m	>500	▲ 3132	24	▲ 1313
Chromium	ppm	ASTM D5185m	>10	▲ 34	0	▲ 17
Nickel	ppm	ASTM D5185m	>10	▲ 10	0	4
Titanium	ppm	ASTM D5185m		46	<1	7
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	● 287	1	● 53
Lead	ppm	ASTM D5185m	>25	<1	0	<1
Copper	ppm	ASTM D5185m	>50	5	<1	3
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>75	▲ 1849	8	▲ 291
Potassium	ppm	ASTM D5185m	>20	70	0	23
Water	%	ASTM D6304	>0.2	▲ 0.314	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 3140	---	---
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	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	NEG	NEG
Sodium	ppm	ASTM D5185m		23	<1	1
Boron	ppm	ASTM D5185m		85	4	62
Barium	ppm	ASTM D5185m		0	0	4
Molybdenum	ppm	ASTM D5185m		2	0	<1
Manganese	ppm	ASTM D5185m		● 29	<1	16
Magnesium	ppm	ASTM D5185m		● 32	0	9
Calcium	ppm	ASTM D5185m		115	0	30
Phosphorus	ppm	ASTM D5185m		759	331	488
Zinc	ppm	ASTM D5185m		39	0	36
Sulfur	ppm	ASTM D5185m		19680	18775	16250
Visc @ 40°C	cSt	ASTM D445		156	139	186



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0211284 **Received** : 16 Apr 2024
Lab Number : 06151319 **Tested** : 19 Apr 2024
Unique Number : 10981397 **Diagnosed** : 19 Apr 2024 - Sean Felton
Test Package : CONST (Additional Tests: KF, PQ)

FITZGERALD EXCAVATING
 PO BOX 2168
 WINCHESTER, VA
 US 22604
 Contact: Service Manager

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)

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F: