



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXCNF716248
Component
Front Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (39 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0214376	JR0203326	JR0182032
Sample Date		Client Info		09 May 2024	30 Jan 2024	14 Aug 2023
Machine Age	hrs	Client Info		1958	1440	956
Oil Age	hrs	Client Info		977	943	0
Filter Age	hrs	Client Info		977	484	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		216	264	168
Iron	ppm	ASTM D5185m	>500	302	275	160
Chromium	ppm	ASTM D5185m	>10	2	2	1
Nickel	ppm	ASTM D5185m	>10	13	11	6
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	4	2	2
Lead	ppm	ASTM D5185m	>25	<1	<1	1
Copper	ppm	ASTM D5185m	>100	173	144	79
Tin	ppm	ASTM D5185m	>10	8	7	4
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	MODER	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

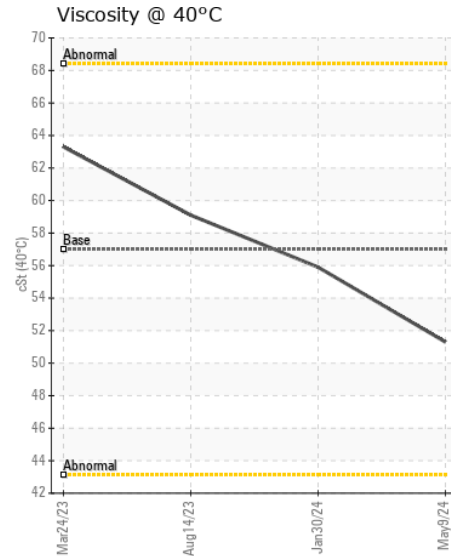
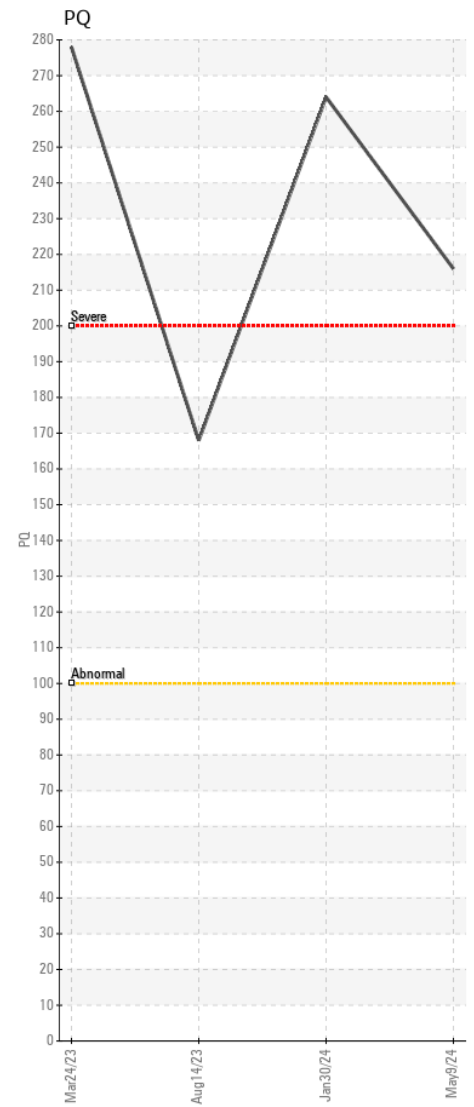
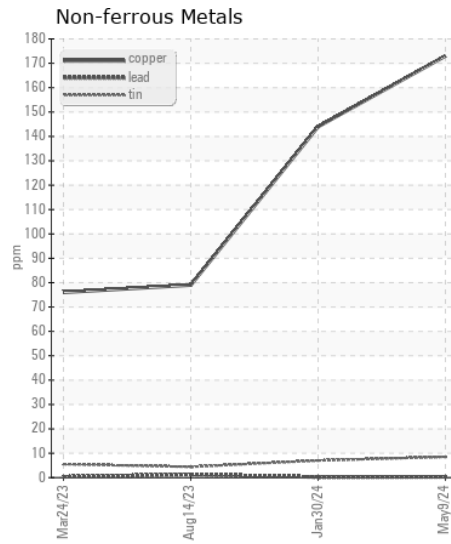
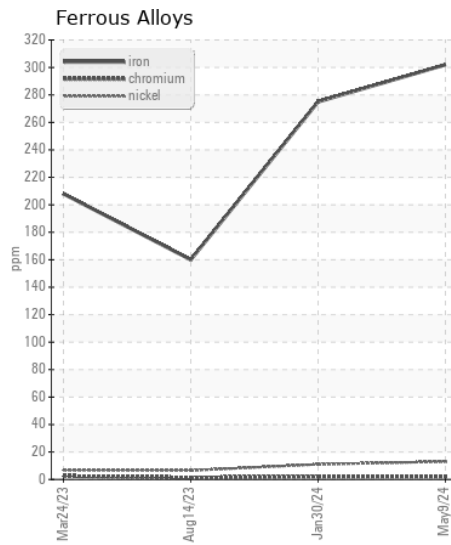
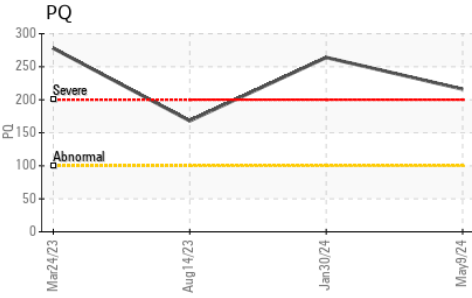
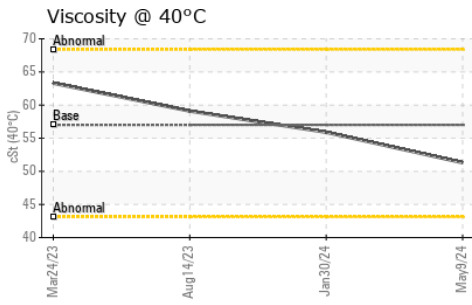
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185m	>75	13	12	10
Potassium	ppm	ASTM D5185m	>20	2	2	<1
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	MODER	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	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		10	8	10
Boron	ppm	ASTM D5185m	6	46	37	35
Barium	ppm	ASTM D5185m	0	1	2	0
Molybdenum	ppm	ASTM D5185m	0	6	6	5
Manganese	ppm	ASTM D5185m		23	25	19
Magnesium	ppm	ASTM D5185m	145	97	95	93
Calcium	ppm	ASTM D5185m	3570	3497	3356	3239
Phosphorus	ppm	ASTM D5185m	1290	1246	1077	964
Zinc	ppm	ASTM D5185m	1640	1334	1290	1241
Sulfur	ppm	ASTM D5185m		4560	4095	3759
Visc @ 40°C	cSt	ASTM D445	57.0	51.3	55.9	59.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0214376 **Received** : 10 May 2024
Lab Number : 06175838 **Tested** : 13 May 2024
Unique Number : 11021891 **Diagnosed** : 14 May 2024 - Sean Felton
Test Package : CONST (Additional Tests: 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)