



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXAMF708863
Component
Rear 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		JR0218498	JR0211098	JR0195761
Sample Date		Client Info		09 Jul 2024	25 Mar 2024	04 Jan 2024
Machine Age	hrs	Client Info		7628	7036	6583
Oil Age	hrs	Client Info		7175	453	2000
Filter Age	hrs	Client Info		7175	453	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		77	65	68
Iron	ppm	ASTM D5185m	>500	182	111	212
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	1	1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	2	2	3
Lead	ppm	ASTM D5185m	>25	<1	1	<1
Copper	ppm	ASTM D5185m	>100	111	36	65
Tin	ppm	ASTM D5185m	>10	3	2	3
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

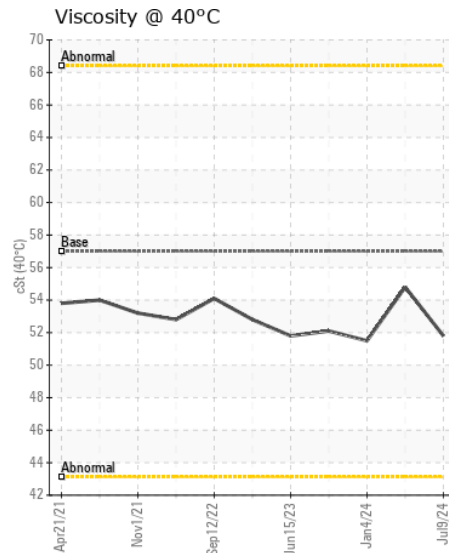
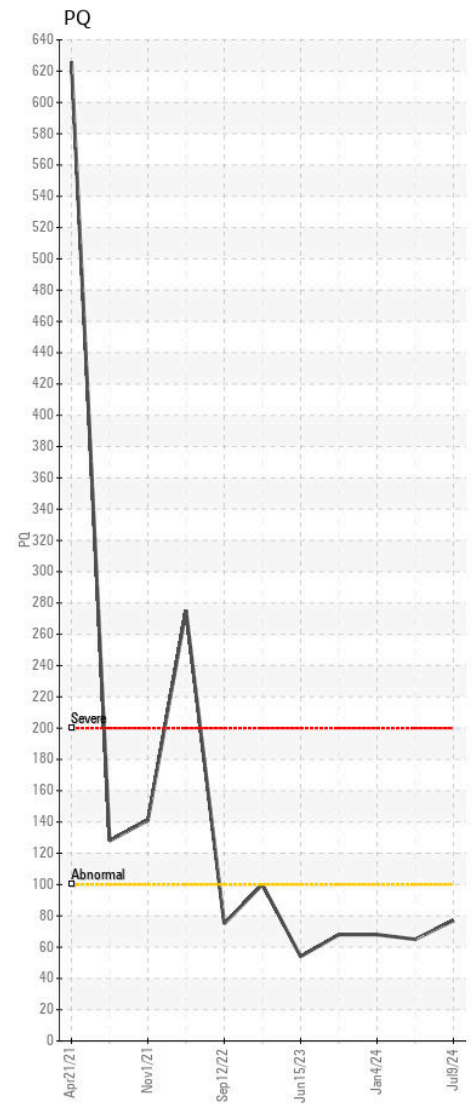
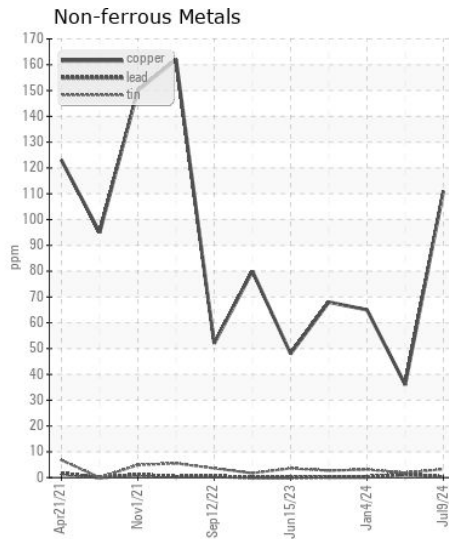
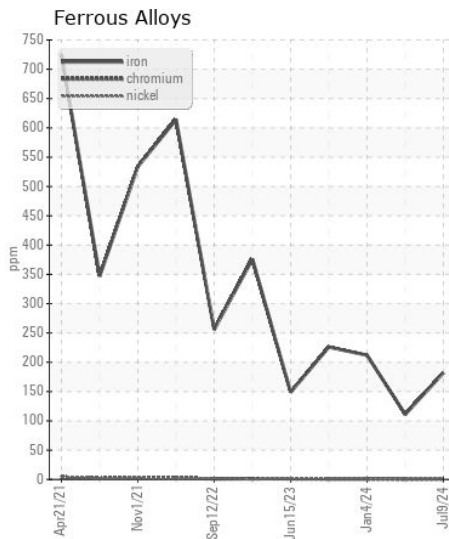
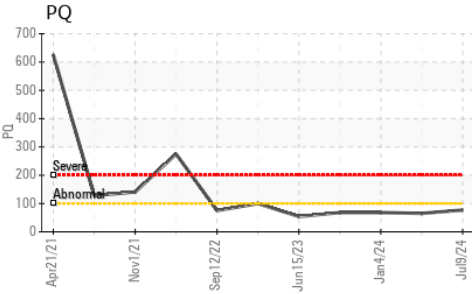
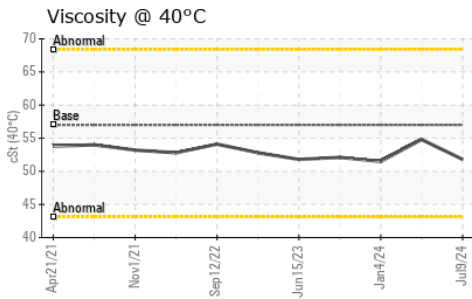
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	9	7	8
Potassium	ppm	ASTM D5185m	>20	2	<1	0
Water		WC Method	>.2	NEG	NEG	NEG
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	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	2	2
Boron	ppm	ASTM D5185m	6	11	10	12
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	7	6	8
Manganese	ppm	ASTM D5185m		4	2	6
Magnesium	ppm	ASTM D5185m	145	117	121	125
Calcium	ppm	ASTM D5185m	3570	3497	3242	3327
Phosphorus	ppm	ASTM D5185m	1290	1046	993	1053
Zinc	ppm	ASTM D5185m	1640	1281	1206	1223
Sulfur	ppm	ASTM D5185m		4240	4370	3487
Visc @ 40°C	cSt	ASTM D445	57.0	51.8	54.8	51.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218498 **Received** : 11 Jul 2024
Lab Number : 06233467 **Tested** : 12 Jul 2024
Unique Number : 11116960 **Diagnosed** : 13 Jul 2024 - Don Baldrige
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)