



WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[W65260-1]
Machine Id
JOHN DEERE 310E 1DW310EXVMF710644
Component
Rear Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0206352	JR0198040	JR0170696
Sample Date		Client Info		14 Mar 2024	29 Jan 2024	15 Jul 2023
Machine Age	hrs	Client Info		3302	2640	2640
Oil Age	hrs	Client Info		0	2060	2060
Filter Age	hrs	Client Info		0	2060	0
Oil Changed		Client Info		Not Changed	N/A	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				SEVERE	SEVERE	ABNORMAL

WEAR

Bearing and/or bushing wear is indicated.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		79	60	95
Iron	ppm	ASTM D5185m	>500	228	185	149
Chromium	ppm	ASTM D5185m	>10	2	1	1
Nickel	ppm	ASTM D5185m	>10	3	2	2
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	2	2
Lead	ppm	ASTM D5185m	>25	10	10	<1
Copper	ppm	ASTM D5185m	>100	▲ 532	▲ 544	▲ 162
Tin	ppm	ASTM D5185m	>10	▲ 14	▲ 13	7
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

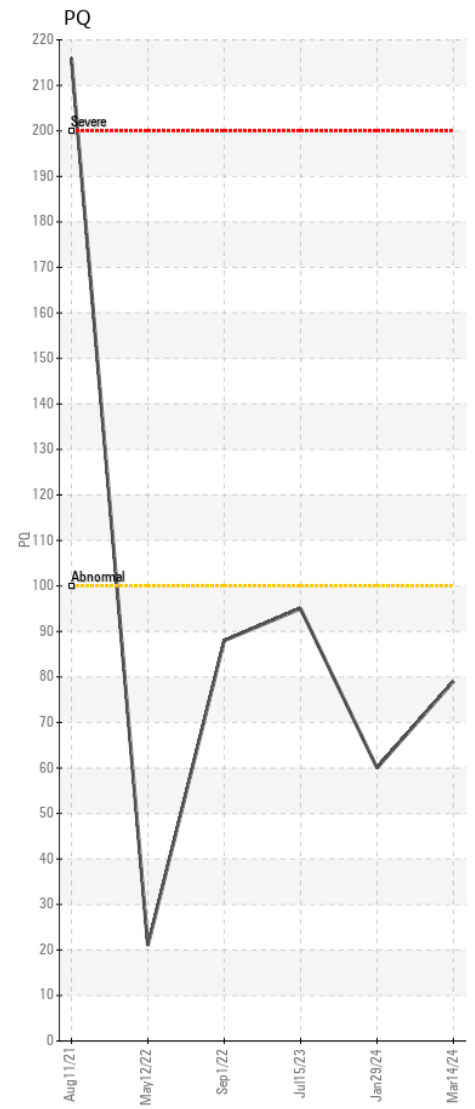
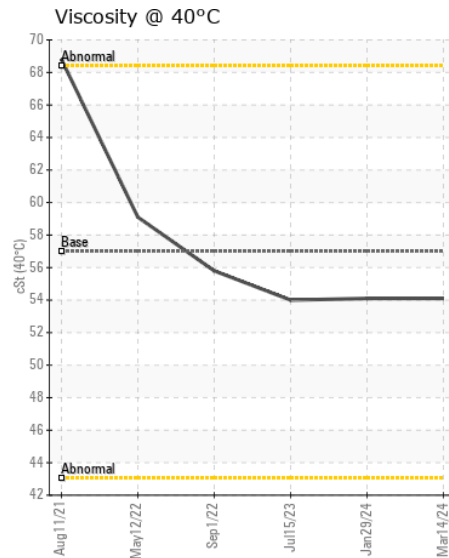
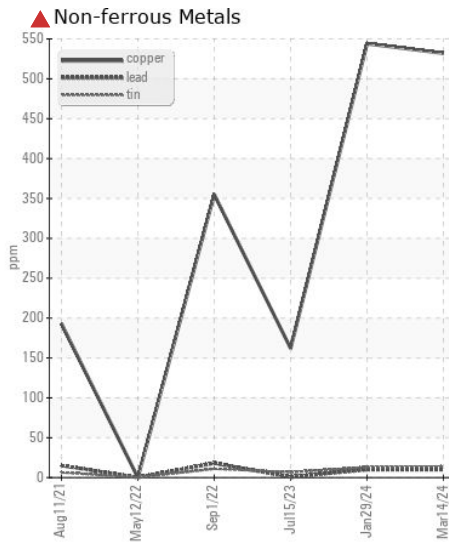
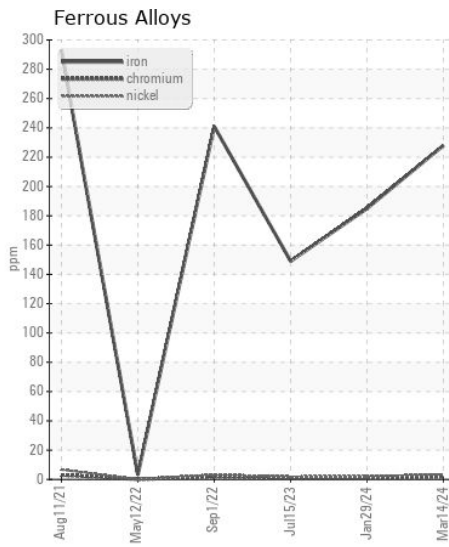
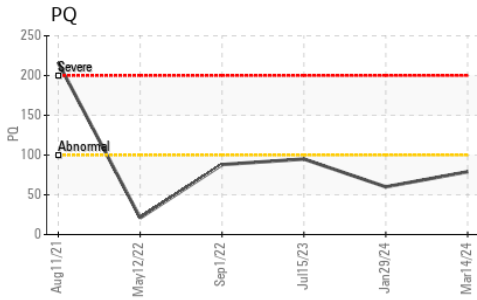
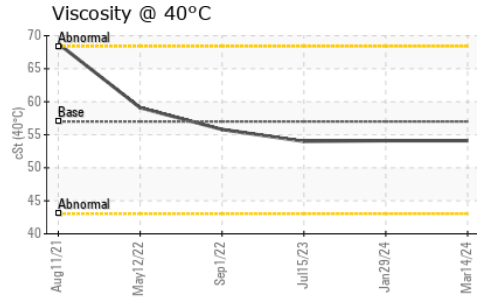
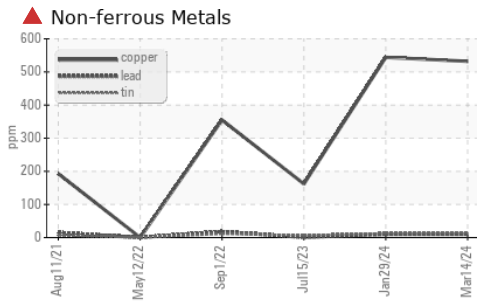
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	15	11	11
Potassium	ppm	ASTM D5185m	>20	2	0	1
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 oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185m		3	3	5
Boron	ppm	ASTM D5185m	6	10	9	11
Barium	ppm	ASTM D5185m	0	0	1	0
Molybdenum	ppm	ASTM D5185m	0	<1	0	<1
Manganese	ppm	ASTM D5185m		9	9	17
Magnesium	ppm	ASTM D5185m	145	88	87	96
Calcium	ppm	ASTM D5185m	3570	3314	3154	3929
Phosphorus	ppm	ASTM D5185m	1290	983	992	1140
Zinc	ppm	ASTM D5185m	1640	1281	1207	1377
Sulfur	ppm	ASTM D5185m		3747	3287	4823
Visc @ 40°C	cSt	ASTM D445	57.0	54.1	54.1	54.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0206352 **Received** : 19 Mar 2024
Lab Number : 06122702 **Tested** : 20 Mar 2024
Unique Number : 10936853 **Diagnosed** : 21 Mar 2024 - Don Baldrige
Test Package : CONST (Additional Tests: 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)

CARLTON'S BACKHOE
 9550 STATESVILLE ROAD
 CHARLOTTE, NC
 US 28269
 Contact: LEO

T: (704)547-0211

F: