



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**JOHN DEERE 310E 1DW310EXVMF710644**  
Component  
**Center Differential**  
Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (10 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0214983</b>	JR0205364	JR0206360
Sample Date		Client Info		<b>07 May 2024</b>	26 Mar 2024	14 Mar 2024
Machine Age	hrs	Client Info		<b>3470</b>	3322	3302
Oil Age	hrs	Client Info		<b>148</b>	2080	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Changed	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	SEVERE

### WEAR

All component wear rates are normal.

PQ		ASTM D8184		<b>15</b>	15	230
Iron	ppm	ASTM D5185m	>500	<b>1</b>	<1	287
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	2
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	4
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	10
Copper	ppm	ASTM D5185m	>100	<b>&lt;1</b>	2	▲ 1042
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	▲ 12
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

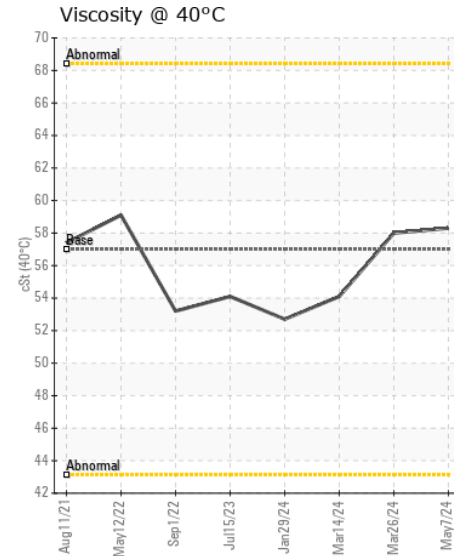
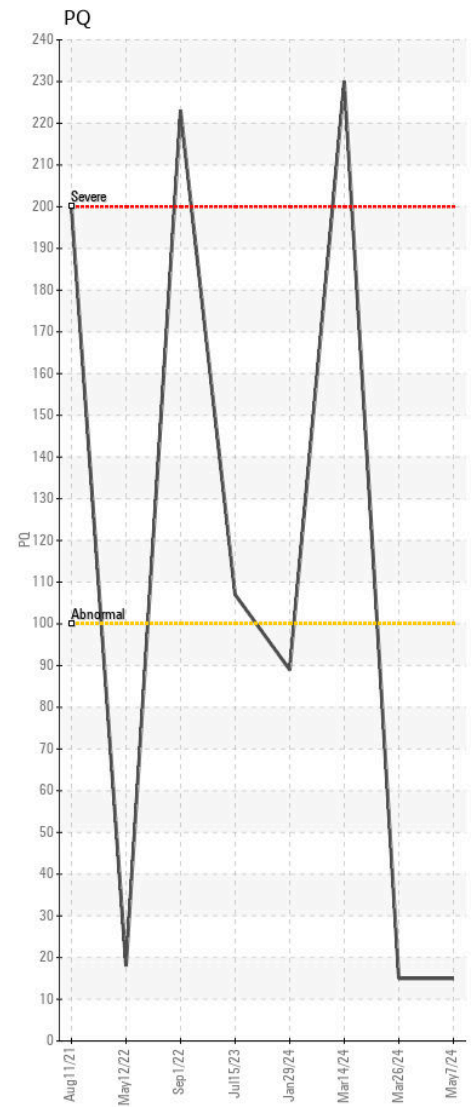
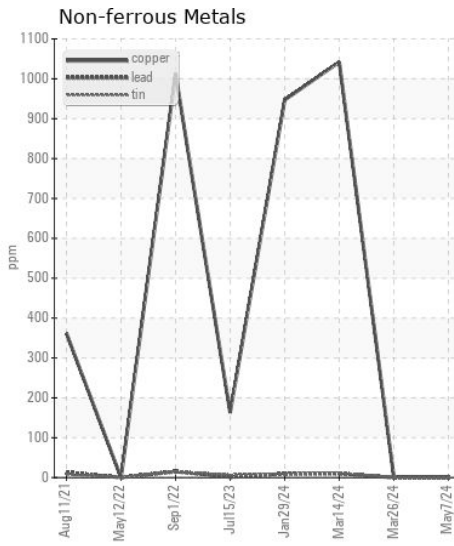
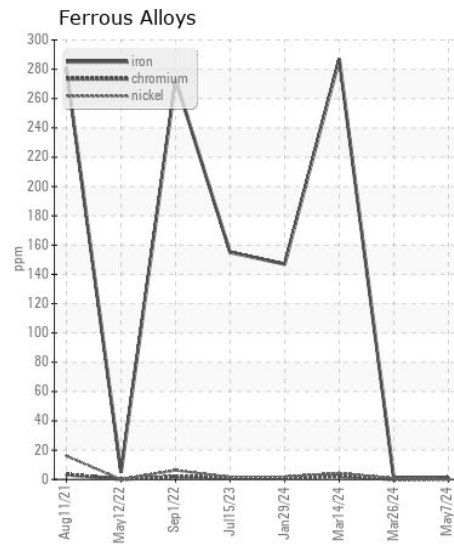
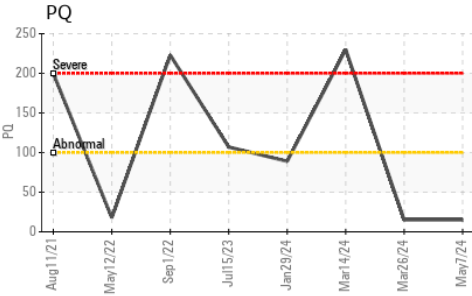
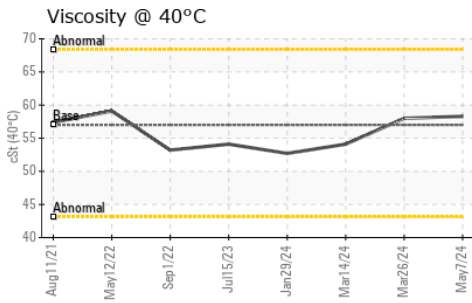
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>7</b>	5	15
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	<b>NEG</b>	NEG	0.2%

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>2</b>	2	<1
Boron	ppm	ASTM D5185m	6	<b>0</b>	<1	11
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	8
Magnesium	ppm	ASTM D5185m	145	<b>143</b>	100	56
Calcium	ppm	ASTM D5185m	3570	<b>4873</b>	3265	3247
Phosphorus	ppm	ASTM D5185m	1290	<b>1621</b>	954	983
Zinc	ppm	ASTM D5185m	1640	<b>1775</b>	1174	1018
Sulfur	ppm	ASTM D5185m		<b>5476</b>	3825	3886
Visc @ 40°C	cSt	ASTM D445	57.0	<b>58.3</b>	58.0	54.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0214983 **Received** : 10 May 2024  
**Lab Number** : 06175801 **Tested** : 13 May 2024  
**Unique Number** : 11021854 **Diagnosed** : 13 May 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

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

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)

T: (704)547-0211

F: