



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



Machine Id  
**JOHN DEERE 310E 1DW310ETLGF678170**  
Component  
**Front Differential**  
Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0206815</b>	JR0162310	JR0143327
Sample Date		Client Info		<b>10 Apr 2024</b>	30 May 2023	16 Dec 2022
Machine Age	hrs	Client Info		<b>7317</b>	6732	6295
Oil Age	hrs	Client Info		<b>6880</b>	6732	500
Filter Age	hrs	Client Info		<b>0</b>	0	500
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

Bearing and/or bushing wear is indicated. All other component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>122</b>	16	181
Iron	ppm	ASTM D5185m	>500	<b>655</b>	1	509
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	0	2
Nickel	ppm	ASTM D5185m	>10	<b>1</b>	0	2
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	<1	4
Lead	ppm	ASTM D5185m	>25	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>100	<b>▲ 300</b>	<1	195
Tin	ppm	ASTM D5185m	>10	<b>▲ 11</b>	<1	8
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

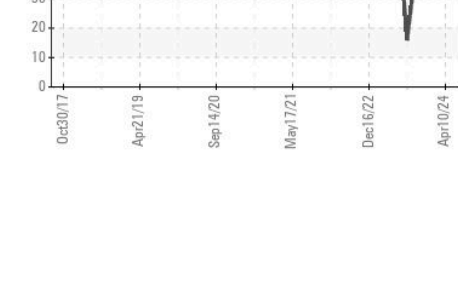
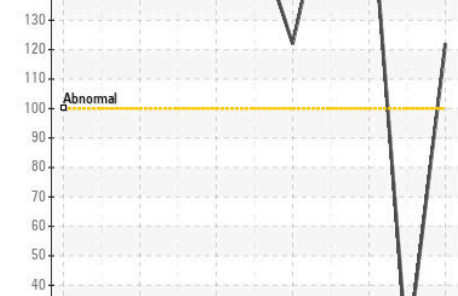
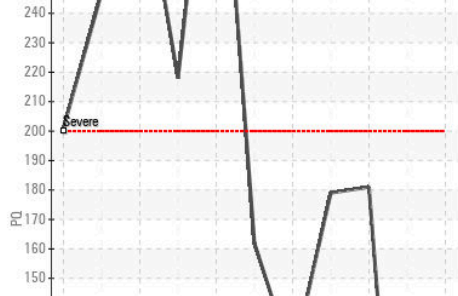
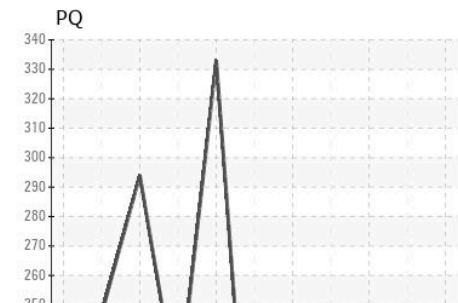
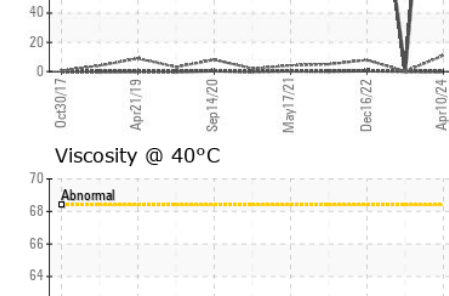
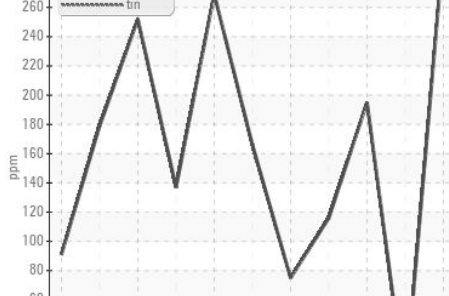
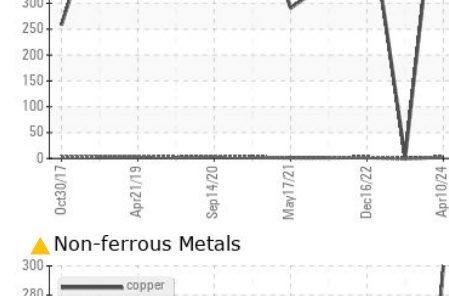
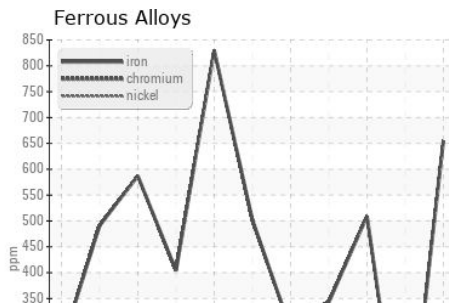
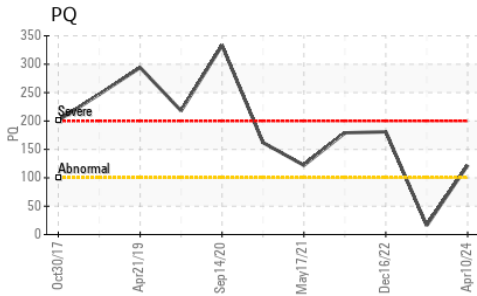
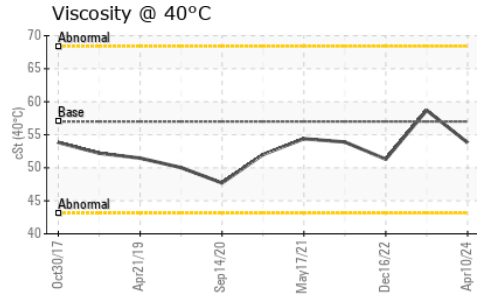
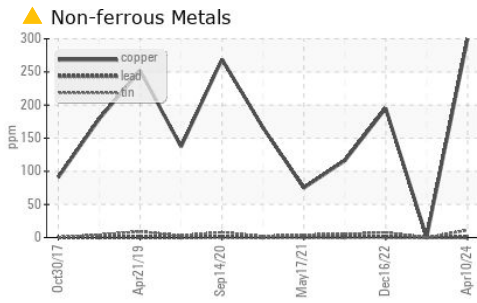
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>14</b>	6	12
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
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	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>4</b>	1	2
Boron	ppm	ASTM D5185m	6	<b>5</b>	0	4
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>2</b>	<1	2
Manganese	ppm	ASTM D5185m		<b>11</b>	<1	8
Magnesium	ppm	ASTM D5185m	145	<b>97</b>	99	103
Calcium	ppm	ASTM D5185m	3570	<b>3465</b>	3455	3591
Phosphorus	ppm	ASTM D5185m	1290	<b>1015</b>	965	1000
Zinc	ppm	ASTM D5185m	1640	<b>1196</b>	1212	1241
Sulfur	ppm	ASTM D5185m		<b>3885</b>	4015	4038
Visc @ 40°C	cSt	ASTM D445	57.0	<b>53.8</b>	58.7	51.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0206815 **Received** : 12 Apr 2024  
**Lab Number** : 06147645 **Tested** : 15 Apr 2024  
**Unique Number** : 10977723 **Diagnosed** : 16 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

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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)