



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



Machine Id  
**JOHN DEERE 310E 1DW310EXCKF697812**  
Component  
**Rear Differential**  
Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0213370</b>	JR0187329	JR0145732
Sample Date		Client Info		<b>11 May 2024</b>	23 Oct 2023	27 Dec 2022
Machine Age	hrs	Client Info		<b>3542</b>	3001	2190
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>17</b>	184	371
Iron	ppm	ASTM D5185m	>500	<b>4</b>	▲ 609	▲ 808
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	3	3
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	3	3
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	4
Lead	ppm	ASTM D5185m	>25	<b>0</b>	13	16
Copper	ppm	ASTM D5185m	>100	<b>&lt;1</b>	▲ 327	▲ 374
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	10	9
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

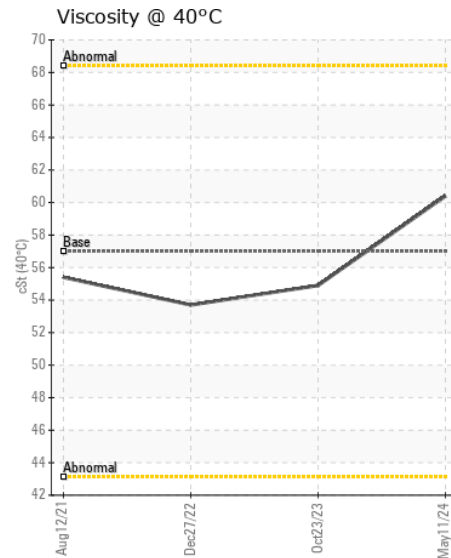
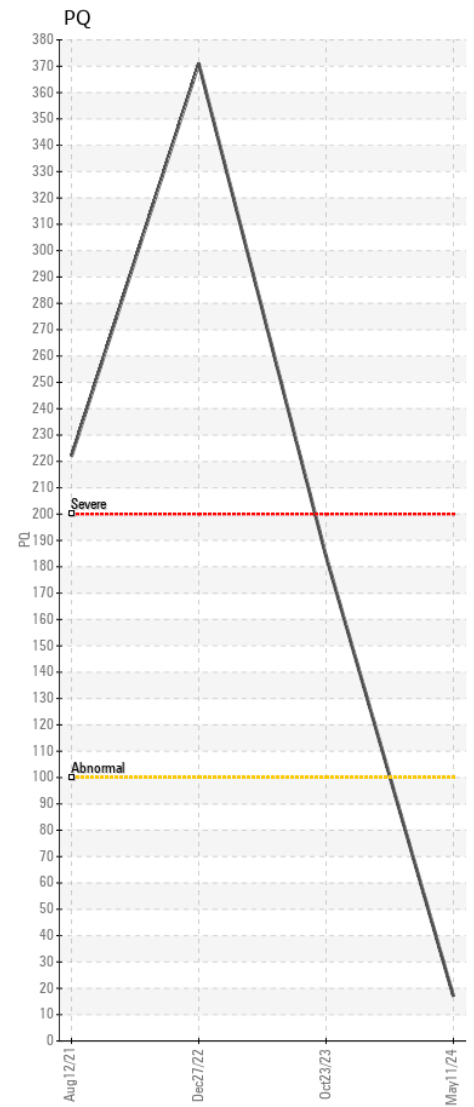
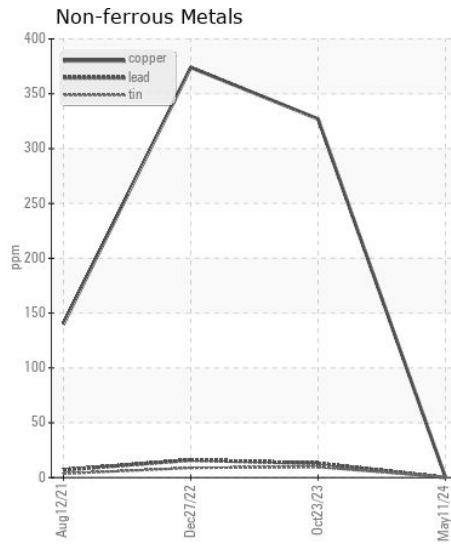
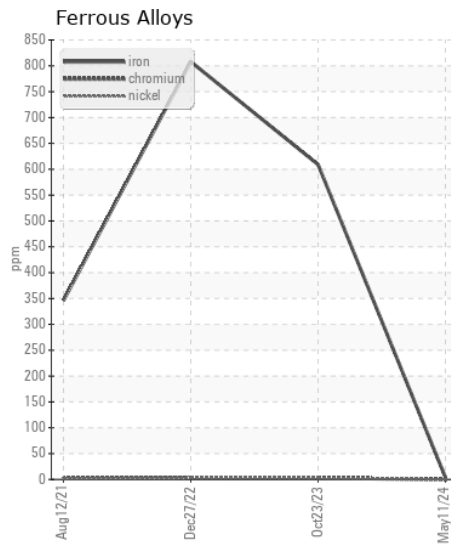
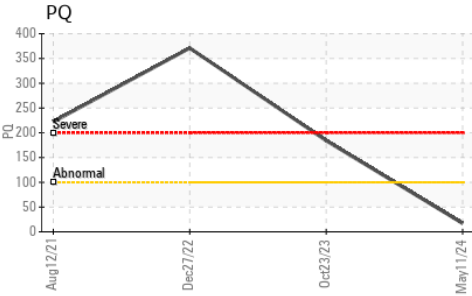
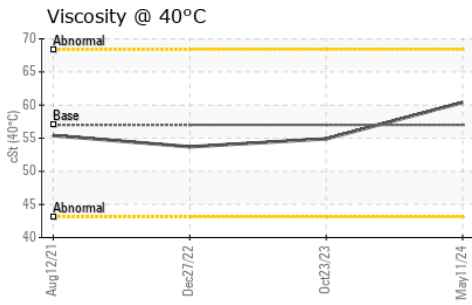
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>6</b>	14	15
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
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>0</b>	3	4
Boron	ppm	ASTM D5185m	6	<b>13</b>	21	19
Barium	ppm	ASTM D5185m	0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	0	<b>11</b>	12	8
Manganese	ppm	ASTM D5185m		<b>0</b>	14	23
Magnesium	ppm	ASTM D5185m	145	<b>121</b>	135	103
Calcium	ppm	ASTM D5185m	3570	<b>3207</b>	3316	3408
Phosphorus	ppm	ASTM D5185m	1290	<b>1095</b>	1066	1035
Zinc	ppm	ASTM D5185m	1640	<b>1195</b>	1345	1287
Sulfur	ppm	ASTM D5185m		<b>3695</b>	3680	4108
Visc @ 40°C	cSt	ASTM D445	57.0	<b>60.4</b>	54.9	53.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : JR0213370

**Lab Number** : 06175785

**Unique Number** : 11021838

**Test Package** : CONST ( Additional Tests: PQ )

**Received** : 10 May 2024

**Tested** : 13 May 2024

**Diagnosed** : 13 May 2024 - Wes Davis

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)

**JRE - GREENSBORO**

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