



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



Machine Id  
**JOHN DEERE 310E 1DW310EXCKF697088**  
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>JR0194851</b>	JR0187133	JR0158132
Sample Date		Client Info		<b>31 Jan 2024</b>	15 Oct 2023	28 Apr 2023
Machine Age	hrs	Client Info		<b>6439</b>	6228	5725
Oil Age	hrs	Client Info		<b>0</b>	0	516
Filter Age	hrs	Client Info		<b>0</b>	0	516
Oil Changed		Client Info		<b>N/A</b>	N/A	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184		<b>122</b>	189	199
Iron	ppm	ASTM D5185m	>500	<b>358</b>	958	905
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	4	3
Nickel	ppm	ASTM D5185m	>10	<b>1</b>	4	3
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	5
Lead	ppm	ASTM D5185m	>25	<b>5</b>	14	13
Copper	ppm	ASTM D5185m	>100	<b>74</b>	209	191
Tin	ppm	ASTM D5185m	>10	<b>2</b>	6	6
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

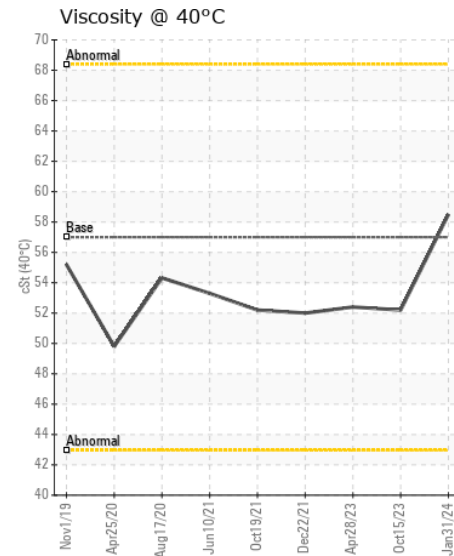
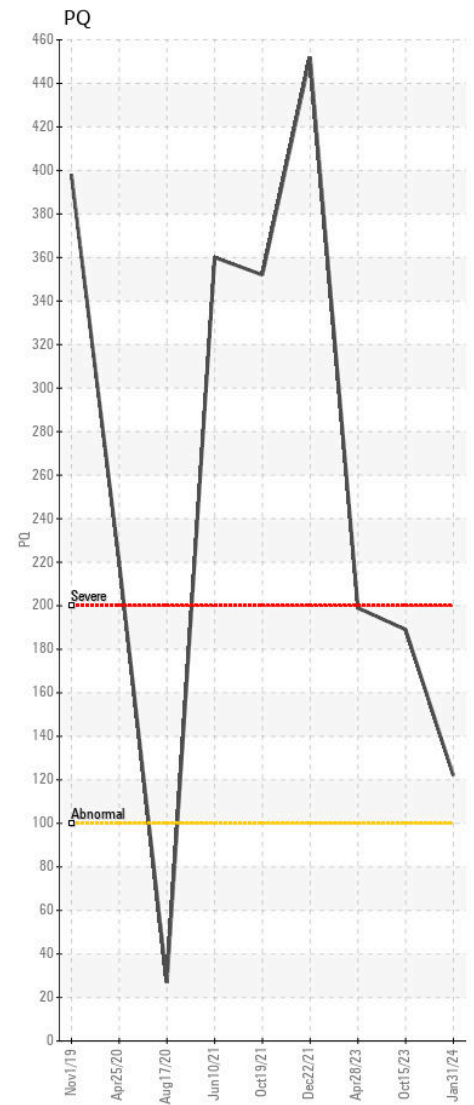
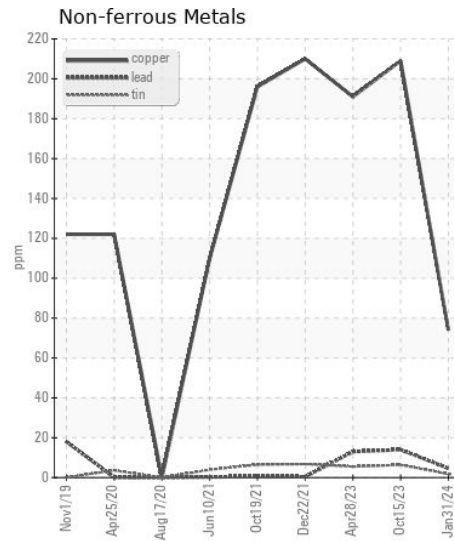
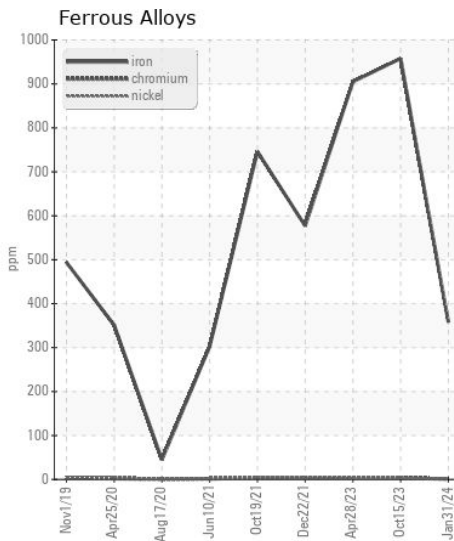
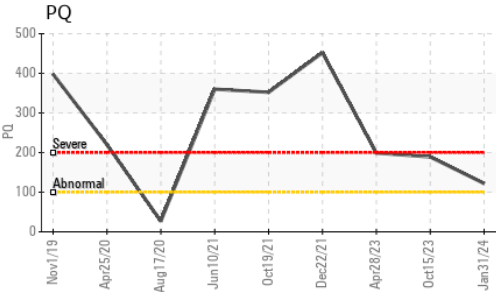
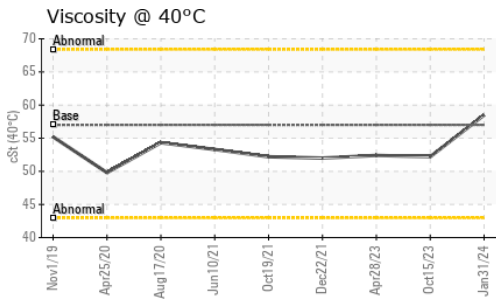
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>8</b>	14	15
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	0
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
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>	2	1
Boron	ppm	ASTM D5185m	6	<b>27</b>	5	6
Barium	ppm	ASTM D5185m	0	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>25</b>	<1	3
Manganese	ppm	ASTM D5185m		<b>4</b>	12	14
Magnesium	ppm	ASTM D5185m	145	<b>156</b>	94	105
Calcium	ppm	ASTM D5185m	3570	<b>3134</b>	3403	3684
Phosphorus	ppm	ASTM D5185m	1290	<b>974</b>	953	1090
Zinc	ppm	ASTM D5185m	1640	<b>1186</b>	1265	1390
Sulfur	ppm	ASTM D5185m		<b>3623</b>	3496	4292
Visc @ 40°C	cSt	ASTM D445	57.0	<b>58.5</b>	52.2	52.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0194851 **Received** : 01 Feb 2024  
**Lab Number** : 06077181 **Diagnosed** : 02 Feb 2024  
**Unique Number** : 10859272 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - GREENSBORO**  
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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)