



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



Machine Id  
**JOHN DEERE 310E 1DW310EXCMF708674**  
Component  
**Hydraulic System**  
Fluid  
**JOHN DEERE HYDRAU (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0221784</b>	JR0177528	JR0161738
Sample Date		Client Info		<b>02 Jul 2024</b>	23 Oct 2023	18 Apr 2023
Machine Age	hrs	Client Info		<b>3983</b>	3589	2961
Oil Age	hrs	Client Info		<b>4000</b>	3165	0
Filter Age	hrs	Client Info		<b>4000</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>10</b>	16	12
Iron	ppm	ASTM D5185m	>71	<b>10</b>	11	9
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>6	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>11	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>13	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>21	<b>3</b>	2	2
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

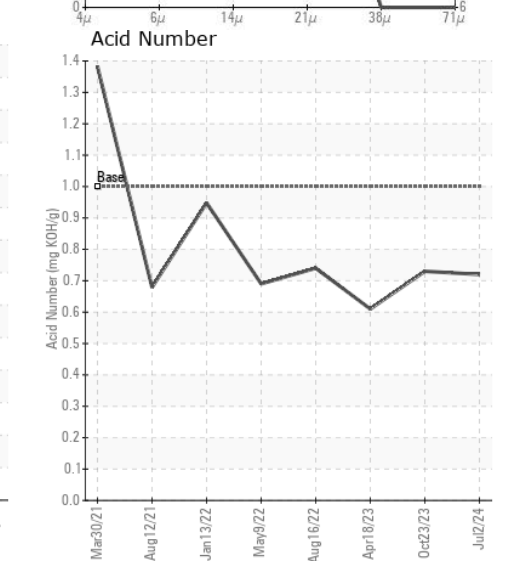
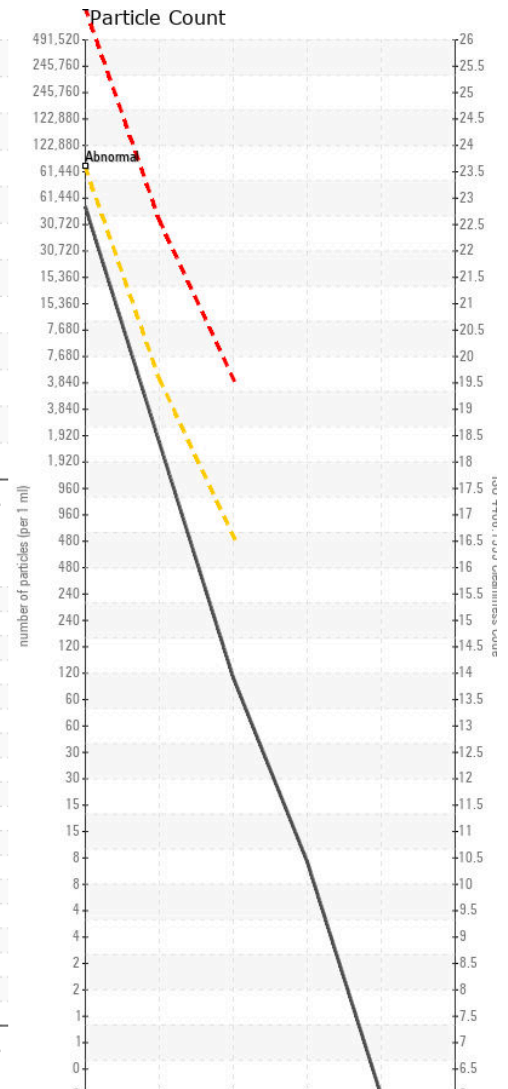
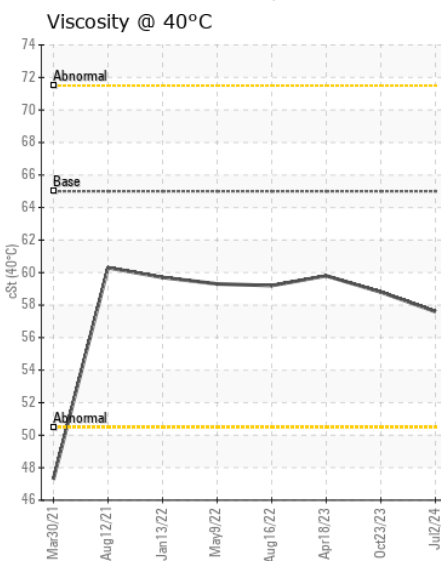
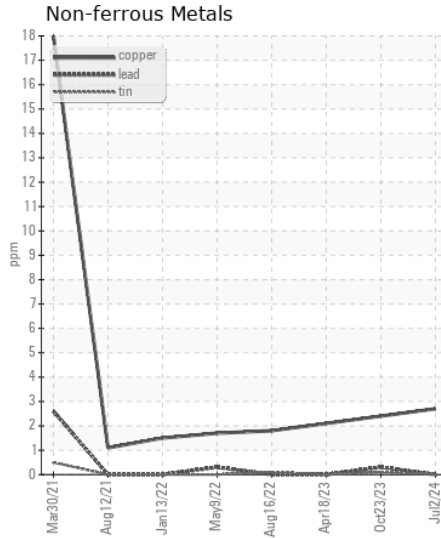
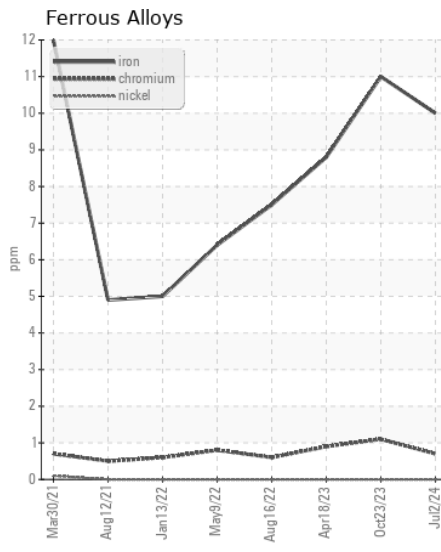
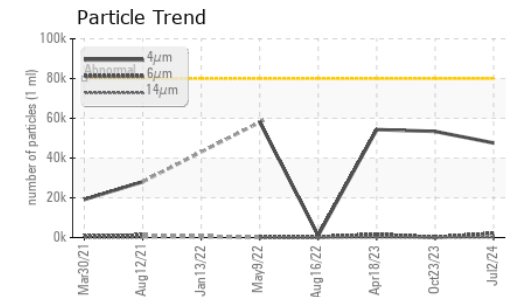
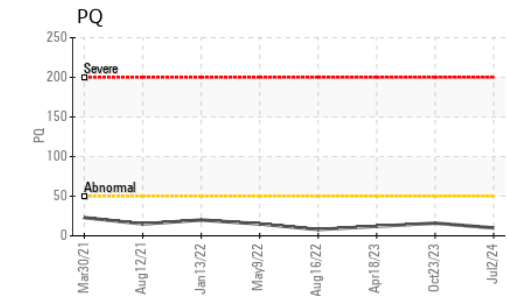
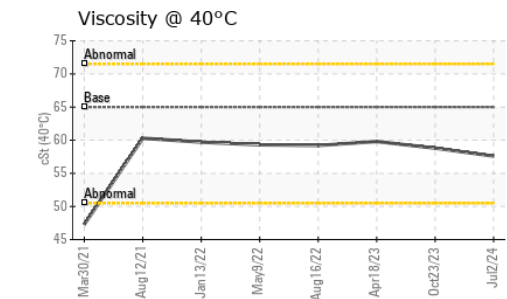
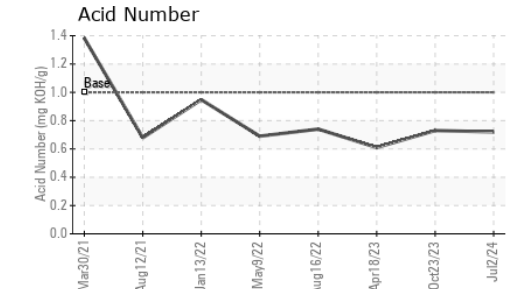
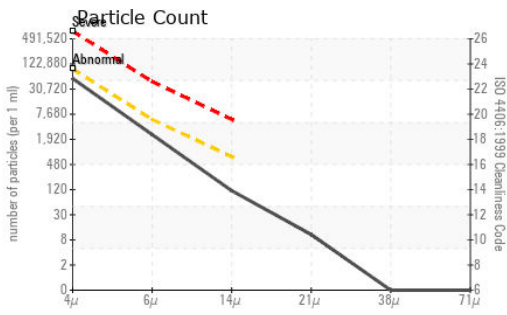
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>24	<b>4</b>	4	2
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	<1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>47580</b>	53390	54310
Particles >6µm		ASTM D7647	>5000	<b>2180</b>	129	1635
Particles >14µm		ASTM D7647	>640	<b>100</b>	10	113
Particles >21µm		ASTM D7647	>160	<b>9</b>	3	23
Particles >38µm		ASTM D7647	>40	<b>0</b>	0	2
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	<b>23/18/14</b>	23/14/10	23/18/14
Silt	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
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	>0.075	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<b>2</b>	0	2
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>2</b>	3	4
Calcium	ppm	ASTM D5185m	87	<b>88</b>	92	92
Phosphorus	ppm	ASTM D5185m	727	<b>534</b>	622	589
Zinc	ppm	ASTM D5185m	900	<b>679</b>	812	806
Sulfur	ppm	ASTM D5185m	1500	<b>1503</b>	1586	1875
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.72</b>	0.73	0.61
Visc @ 40°C	cSt	ASTM D445	65	<b>57.6</b>	58.8	59.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0221784 **Received** : 08 Jul 2024  
**Lab Number** : 06230050 **Tested** : 09 Jul 2024  
**Unique Number** : 11113543 **Diagnosed** : 09 Jul 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - STEPHENSON**  
 245 YARDMASTER COURT  
 STEPHENSON, VA  
 US 22656-1761  
 Contact: PHIL DAUGHERTY  
 pdaugherty@jamesriverequipment.com  
 T: x:  
 F: (540)693-2588

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)