



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



Machine Id  
**JOHN DEERE 210G 1FF210GXCLF528978**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0207791</b>	JR0176969	JR0149403
Sample Date		Client Info		<b>03 May 2024</b>	08 Sep 2023	13 Oct 2022
Machine Age	hrs	Client Info		<b>2489</b>	1962	1571
Oil Age	hrs	Client Info		<b>2489</b>	1962	1571
Filter Age	hrs	Client Info		<b>527</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Not Chngd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>15</b>	4	10
Iron	ppm	ASTM D5185m	>32	<b>&lt;1</b>	3	4
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>0</b>	2	<1
Lead	ppm	ASTM D5185m	>28	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>0</b>	1	1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
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

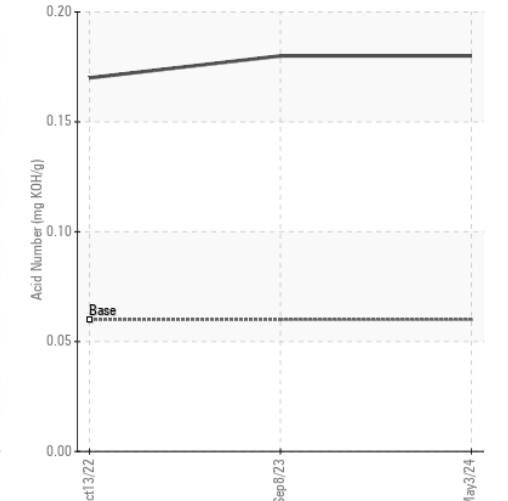
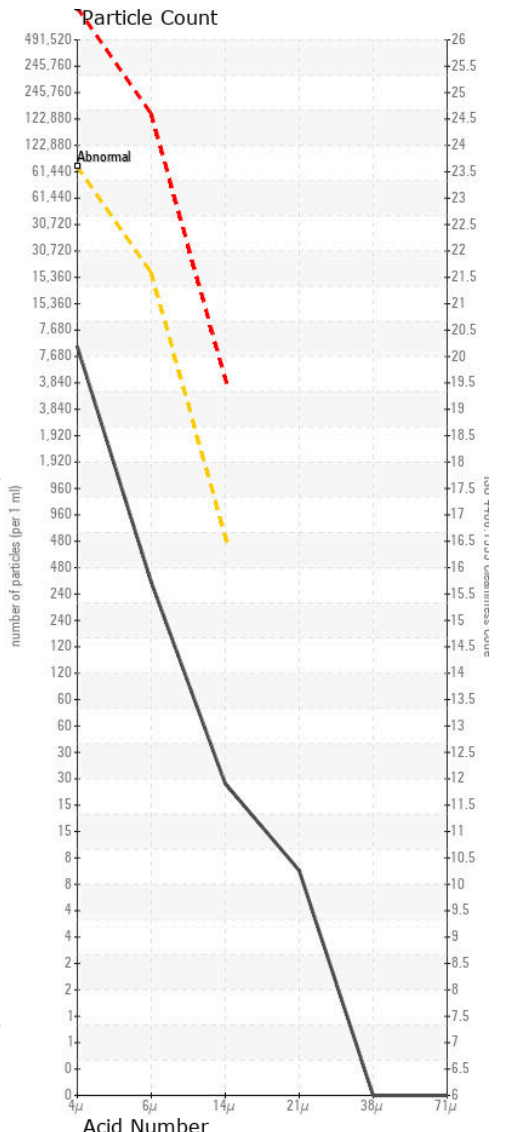
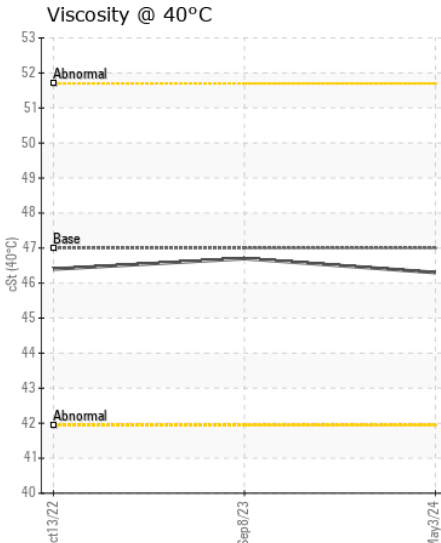
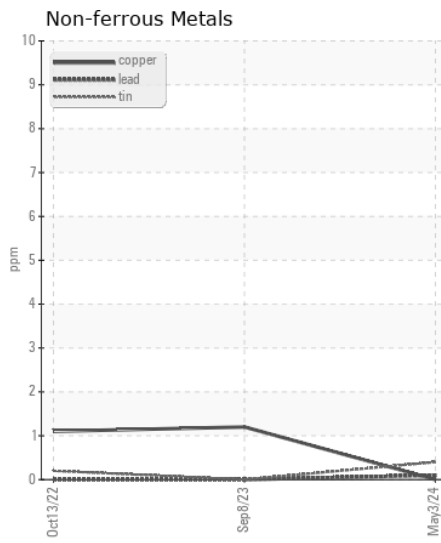
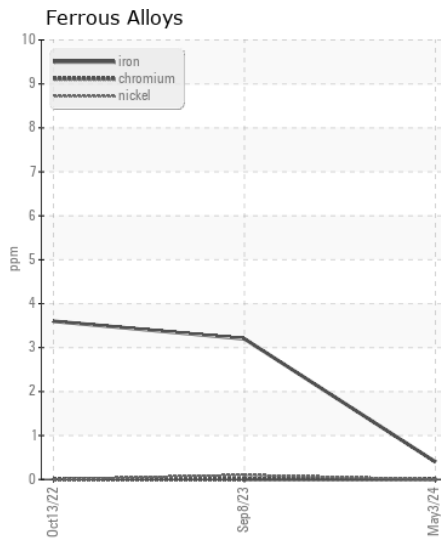
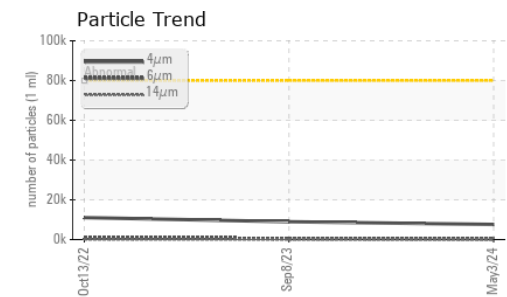
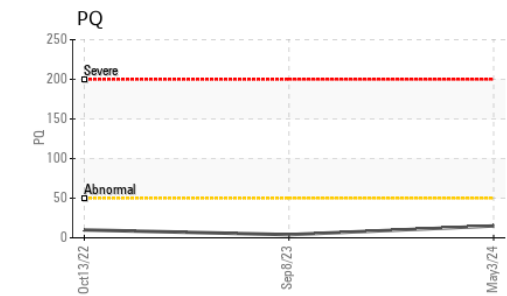
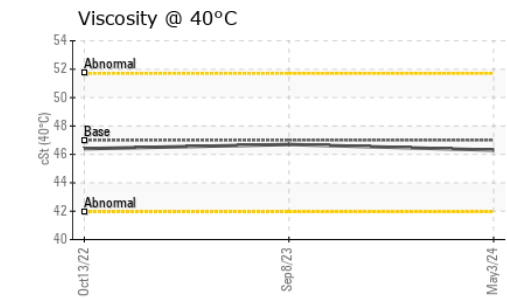
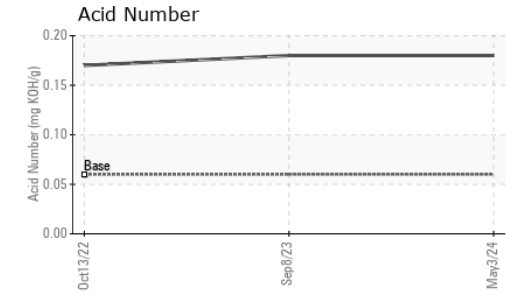
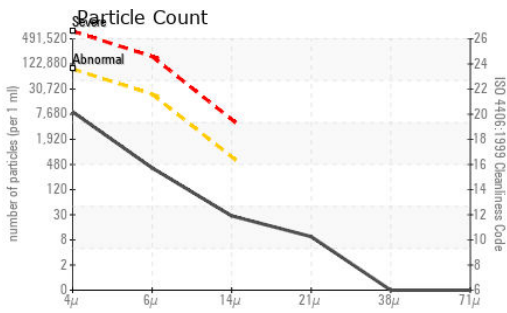
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>7613</b>	8970	11075
Particles >6µm		ASTM D7647	>20000	<b>349</b>	520	793
Particles >14µm		ASTM D7647	>640	<b>25</b>	22	32
Particles >21µm		ASTM D7647	>160	<b>8</b>	4	7
Particles >38µm		ASTM D7647	>40	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>20/16/12</b>	20/16/12	21/17/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	VLITE
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>&lt;1</b>	0	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Calcium	ppm	ASTM D5185m		<b>0</b>	2	2
Phosphorus	ppm	ASTM D5185m	827	<b>506</b>	503	466
Zinc	ppm	ASTM D5185m	0	<b>6</b>	9	23
Sulfur	ppm	ASTM D5185m	13	<b>101</b>	97	114
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.18</b>	0.18	0.17
Visc @ 40°C	cSt	ASTM D445	47	<b>46.3</b>	46.7	46.4



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0207791 **Received** : 09 May 2024  
**Lab Number** : 06174575 **Tested** : 10 May 2024  
**Unique Number** : 11020628 **Diagnosed** : 13 May 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - ASHEVILLE**  
 101 BRUCE DRIVE  
 ASHEVILLE, NC  
 US 28806  
 Contact: Randy Warren  
 randy.warren@jamesriverequipment.com  
 T: (528)667-0176  
 F: (828)667-4865

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)