



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



Machine Id  
**JOHN DEERE 210G 1FF210GXENF530442**

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>JR0197296</b>	JR0175381	JR0163481
Sample Date		Client Info		<b>10 Jan 2024</b>	18 Jul 2023	17 Mar 2023
Machine Age	hrs	Client Info		<b>1484</b>	1103	577
Oil Age	hrs	Client Info		<b>1484</b>	1103	577
Filter Age	hrs	Client Info		<b>0</b>	1103	577
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>11</b>	15	5
Iron	ppm	ASTM D5185m	>32	<b>2</b>	2	2
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>9	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m	>28	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</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

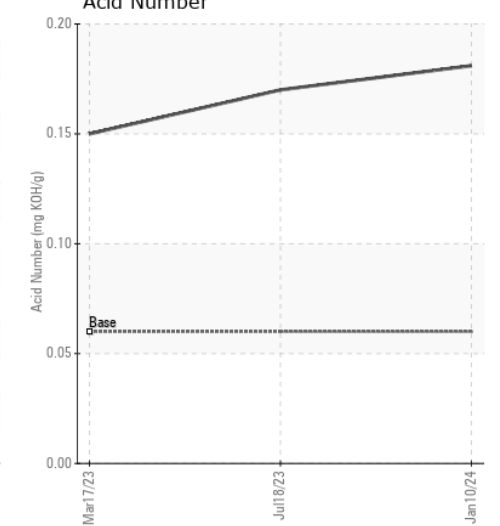
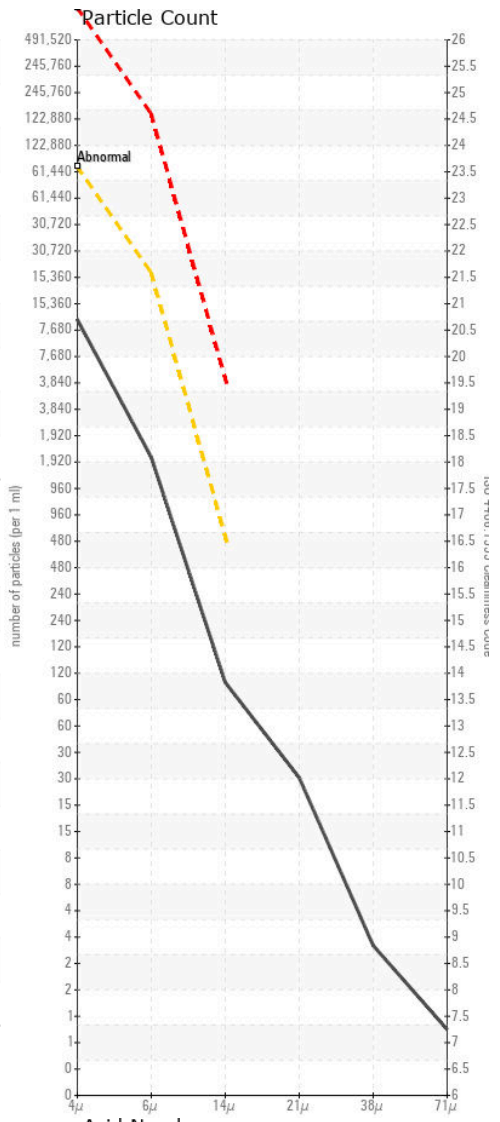
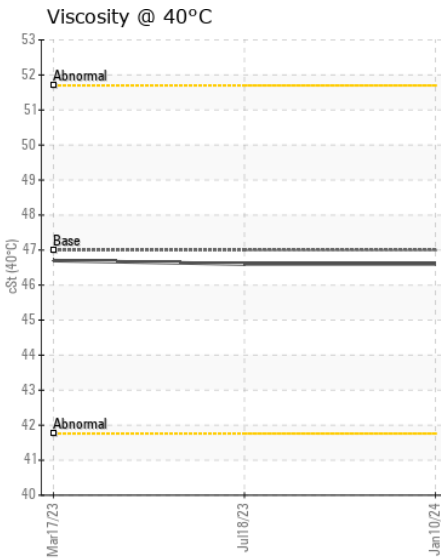
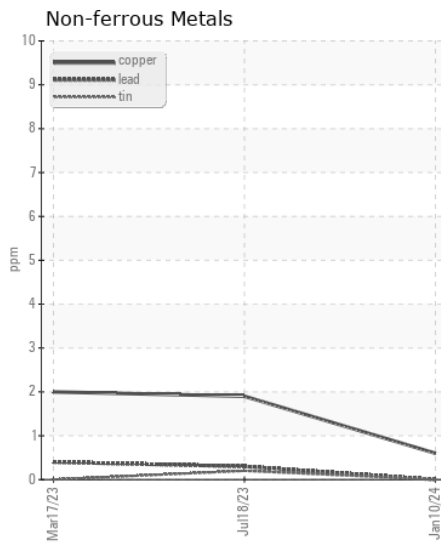
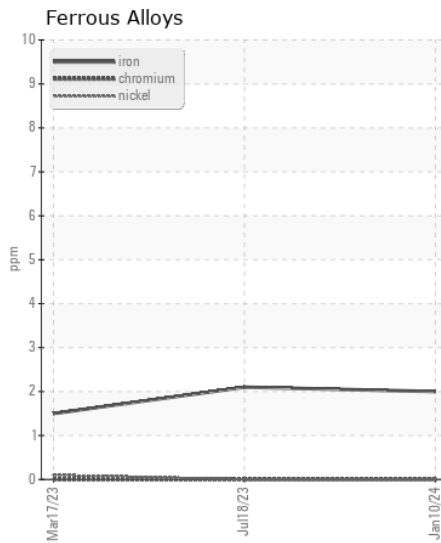
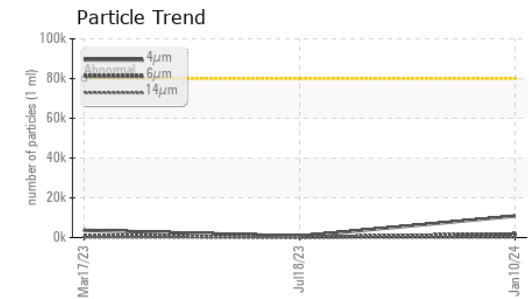
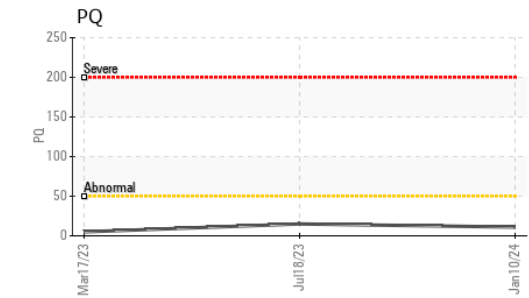
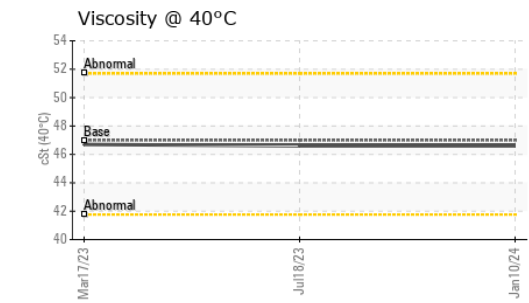
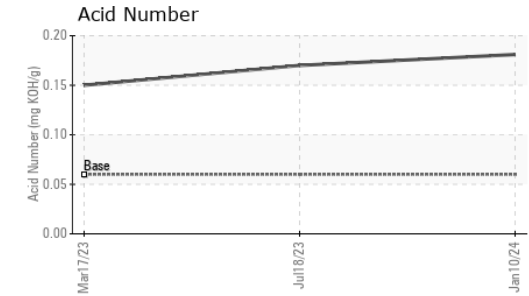
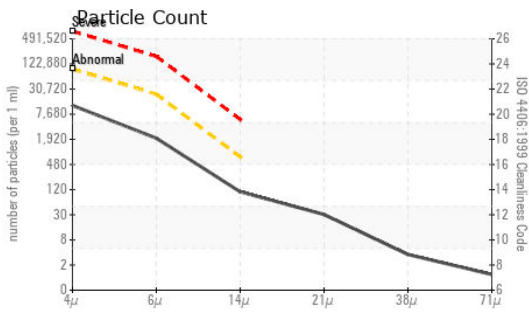
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	<b>0</b>	0	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>10831</b>	700	3680
Particles >6µm		ASTM D7647	>20000	<b>1788</b>	152	992
Particles >14µm		ASTM D7647	>640	<b>94</b>	16	45
Particles >21µm		ASTM D7647	>160	<b>27</b>	4	7
Particles >38µm		ASTM D7647	>40	<b>3</b>	0	1
Particles >71µm		ASTM D7647	>10	<b>1</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>21/18/14</b>	17/14/11	19/17/13
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	>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>0</b>	0	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	0	<1
Calcium	ppm	ASTM D5185m		<b>19</b>	<1	2
Phosphorus	ppm	ASTM D5185m	827	<b>508</b>	512	524
Zinc	ppm	ASTM D5185m	0	<b>26</b>	28	28
Sulfur	ppm	ASTM D5185m	13	<b>94</b>	103	98
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.181</b>	0.17	0.15
Visc @ 40°C	cSt	ASTM D445	47	<b>46.6</b>	46.6	46.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0197296 **Received** : 12 Jan 2024  
**Lab Number** : 06059206 **Diagnosed** : 15 Jan 2024  
**Unique Number** : 10830588 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

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)

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