



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

Machine Id  
**JOHN DEERE 250G 1FF250GXJMF611693**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)**

### RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0205515</b>	JR0193481	JR0179047
Sample Date		Client Info		<b>16 Apr 2024</b>	28 Nov 2023	28 Jul 2023
Machine Age	hrs	Client Info		<b>4105</b>	3500	2963
Oil Age	hrs	Client Info		<b>3022</b>	500	2963
Filter Age	hrs	Client Info		<b>0</b>	500	1000
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Changed</b>	Not Chngd	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>16</b>	13	16
Iron	ppm	ASTM D5185m	>32	<b>2</b>	3	5
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	4	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>&lt;1</b>	5	2
Lead	ppm	ASTM D5185m	>28	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>50	<b>31</b>	<1	19
Tin	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

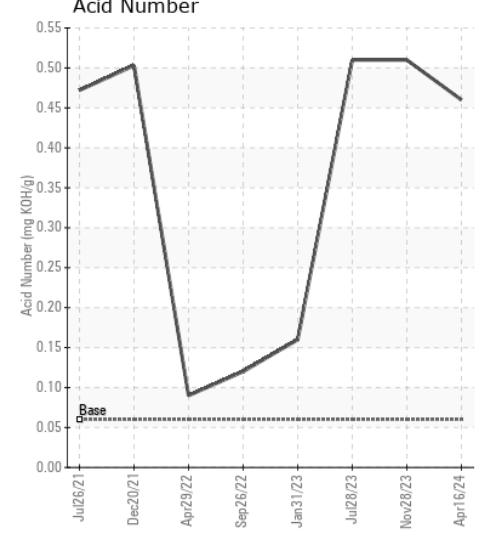
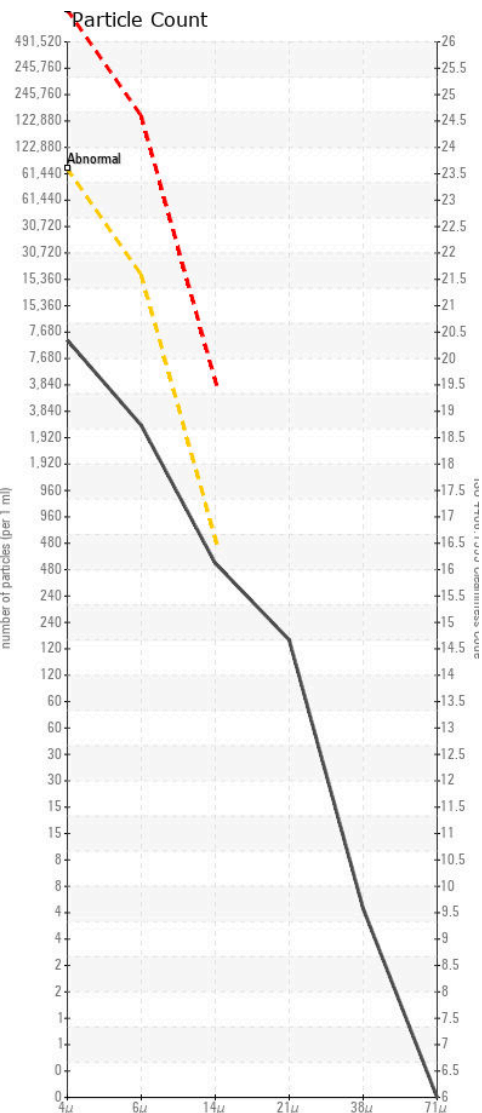
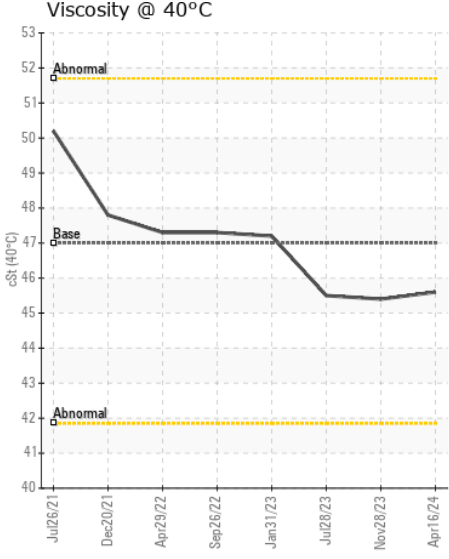
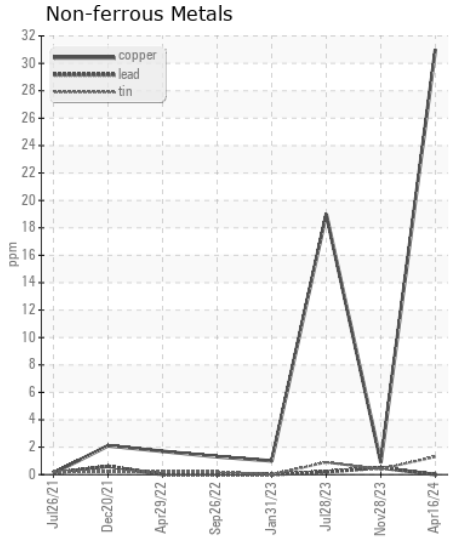
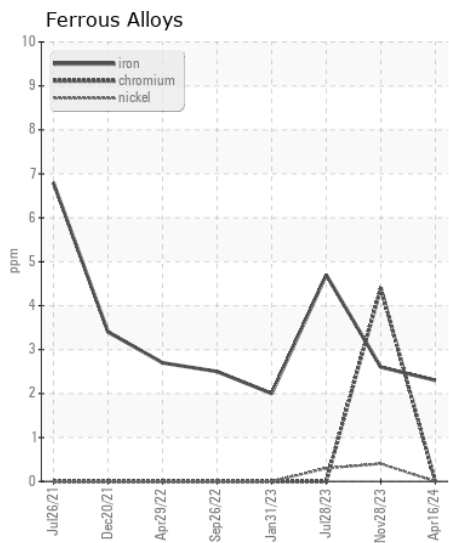
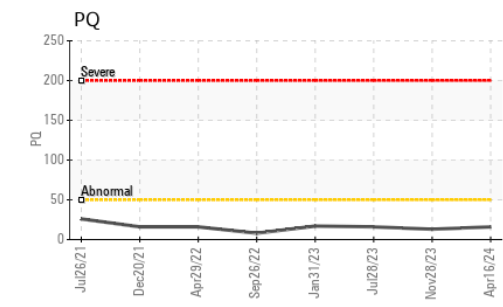
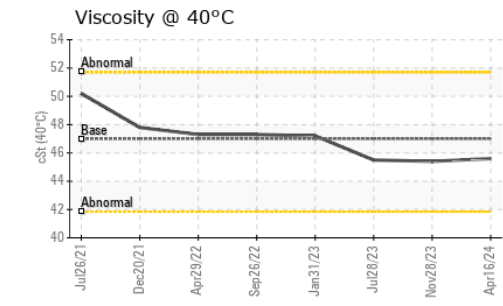
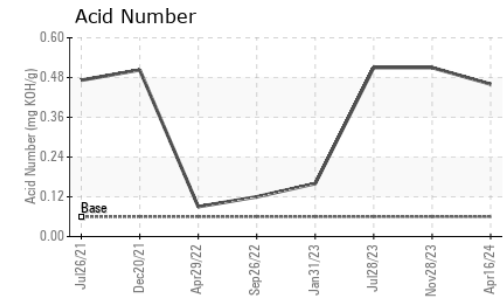
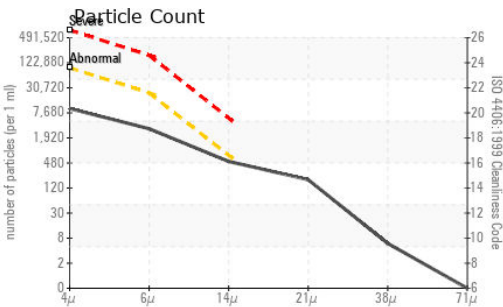
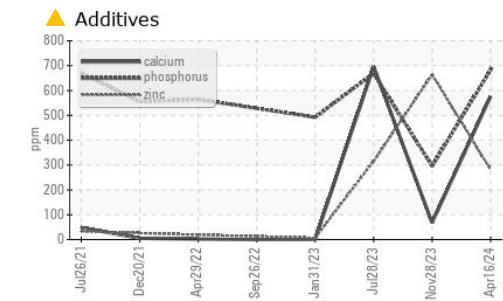
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	6	2
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>8496</b>	5019	20991
Particles >6µm		ASTM D7647	>20000	<b>2788</b>	743	4134
Particles >14µm		ASTM D7647	>640	<b>459</b>	48	555
Particles >21µm		ASTM D7647	>160	<b>168</b>	17	184
Particles >38µm		ASTM D7647	>40	<b>5</b>	1	2
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>20/19/16</b>	20/17/13	22/19/16
Silt	scalar	*Visual	NONE	<b>NONE</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

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m	>21	<b>3</b>	8	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	7	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>3</b>	1	4
Calcium	ppm	ASTM D5185m		<b>576</b>	68	696
Phosphorus	ppm	ASTM D5185m	827	<b>683</b>	296	669
Zinc	ppm	ASTM D5185m	0	<b>▲ 281</b>	▲ 664	▲ 315
Sulfur	ppm	ASTM D5185m	13	<b>1005</b>	1140	1043
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.46</b>	0.51	0.51
Visc @ 40°C	cSt	ASTM D445	47	<b>45.6</b>	45.4	45.5



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0205515 **Received** : 18 Apr 2024  
**Lab Number** : 06152987 **Tested** : 19 Apr 2024  
**Unique Number** : 10983065 **Diagnosed** : 22 Apr 2024 - 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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