



# OIL ANALYSIS REPORT

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



Area  
**Store 8 - Pikeville**  
Machine Id  
**JOHN DEERE 350G 1FF350GXCJF812424**  
Component  
**Hydraulic System**  
Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (77 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>LEC0049676</b>	LEC0042708	LEC0047298
Sample Date		Client Info		<b>04 Apr 2024</b>	24 Jan 2024	12 Jan 2024
Machine Age	hrs	Client Info		<b>4464</b>	4386	4343
Oil Age	hrs	Client Info		<b>78</b>	4386	4343
Filter Age	hrs	Client Info		<b>4464</b>	1373	1192
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>12</b>	16	16
Iron	ppm	ASTM D5185m	>32	<b>16</b>	32	31
Chromium	ppm	ASTM D5185m	>9	<b>5</b>	9	8
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>28	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>6</b>	11	9
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	1	<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

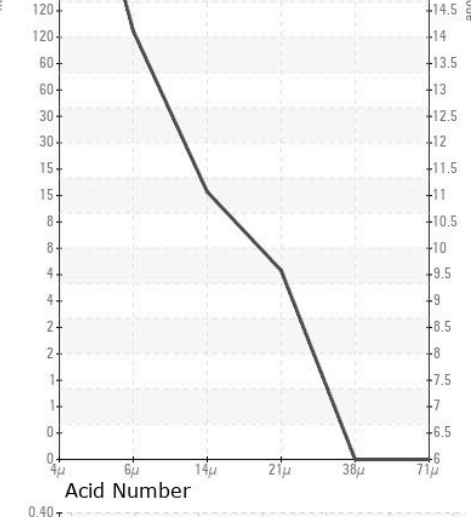
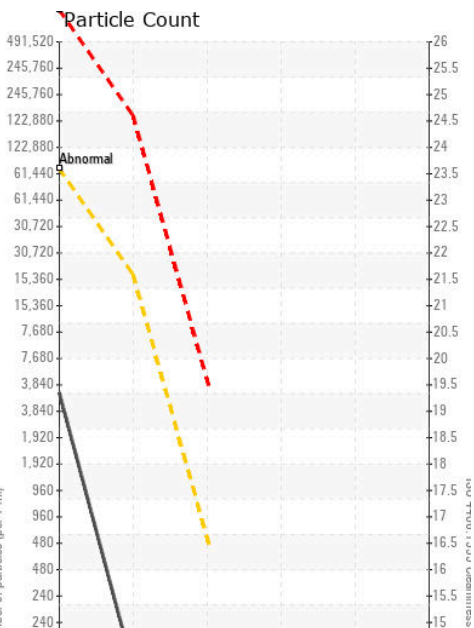
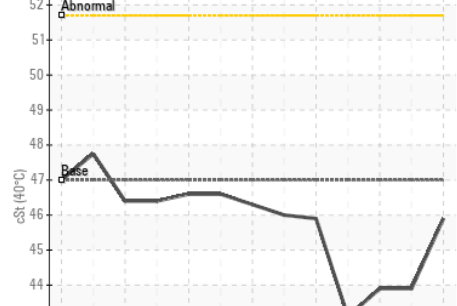
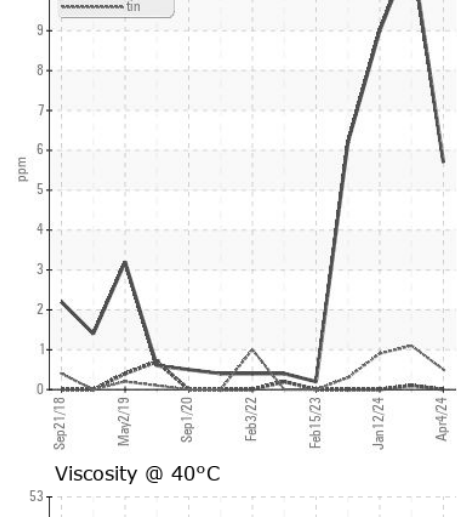
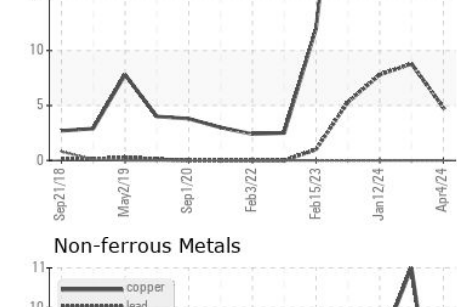
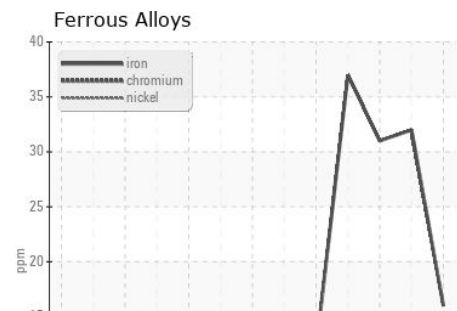
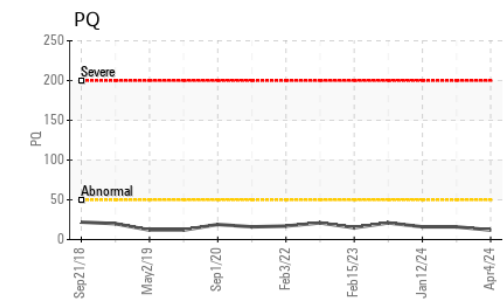
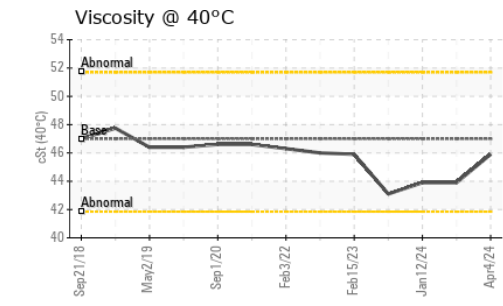
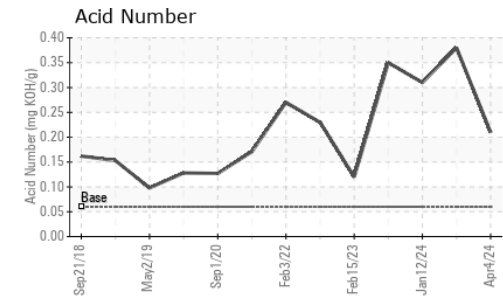
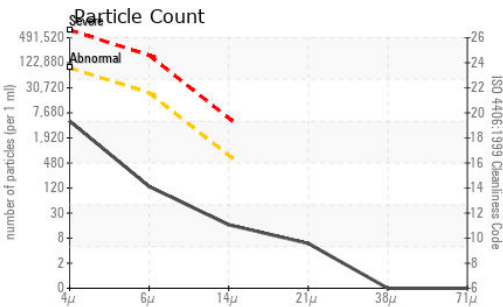
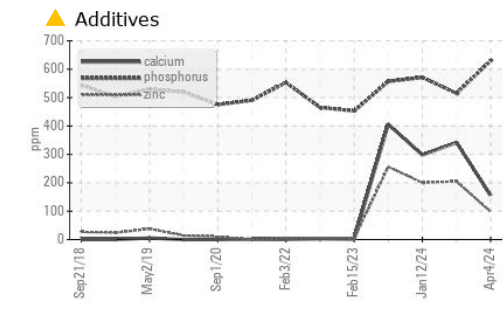
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>3</b>	8	8
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	4	2
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>4272</b>	43389	72571
Particles >6µm		ASTM D7647	>20000	<b>115</b>	1064	4644
Particles >14µm		ASTM D7647	>640	<b>14</b>	11	14
Particles >21µm		ASTM D7647	>160	<b>5</b>	3	3
Particles >38µm		ASTM D7647	>40	<b>0</b>	0	1
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>19/14/11</b>	23/17/11	23/19/11
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>0</b>	0	2
Boron	ppm	ASTM D5185m		<b>5</b>	13	13
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>6</b>	13	9
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>28</b>	62	61
Calcium	ppm	ASTM D5185m		<b>156</b>	342	298
Phosphorus	ppm	ASTM D5185m	827	<b>629</b>	515	571
Zinc	ppm	ASTM D5185m	0	<b>▲ 98</b>	▲ 205	▲ 200
Sulfur	ppm	ASTM D5185m	13	<b>474</b>	1063	952
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.21</b>	0.38	0.31
Visc @ 40°C	cSt	ASTM D445	47	<b>45.9</b>	43.9	43.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0049676 **Received** : 10 Apr 2024  
**Lab Number** : 06145256 **Tested** : 16 Apr 2024  
**Unique Number** : 10970064 **Diagnosed** : 16 Apr 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: PQ )

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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)