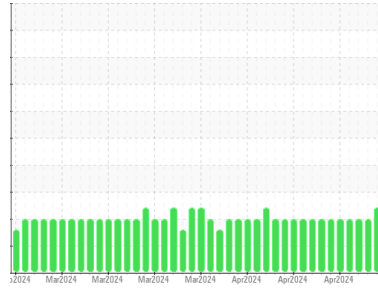




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Area  
**WCLSNC**  
 Machine Id  
**QC230801HY**  
 Component  
**Hydraulic System**  
 Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

### DIAGNOSIS

#### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is a high amount of particulates present in the oil.

#### Fluid Condition

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

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0929407</b>	WC0929406	WC0929403
Sample Date	Client Info		<b>23 Apr 2024</b>	22 Apr 2024	19 Apr 2024
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR METALS

	method	limit/base	current	history1	history2	
PQ	ASTM D8184	>47	<b>35</b>	28	102	
Iron	ppm	ASTM D5185m	>78	<b>65</b>	54	62
Chromium	ppm	ASTM D5185m	>2	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>3	<b>2</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>11	<b>9</b>	10	9
Copper	ppm	ASTM D5185m	>84	<b>76</b>	64	78
Tin	ppm	ASTM D5185m	>4	<b>3</b>	2	3
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	6	<b>101</b>	90	117
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>19</b>	17	18
Magnesium	ppm	ASTM D5185m	145	<b>22</b>	23	23
Calcium	ppm	ASTM D5185m	3570	<b>3436</b>	3324	3459
Phosphorus	ppm	ASTM D5185m	1290	<b>1119</b>	1017	1212
Zinc	ppm	ASTM D5185m	1640	<b>1421</b>	1320	1421
Sulfur	ppm	ASTM D5185m		<b>3536</b>	3733	3946

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>11	<b>9</b>	8	9
Sodium	ppm	ASTM D5185m	>23	<b>17</b>	14	21
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Water	%	ASTM D6304	>0.1669	<b>0.069</b>	0.043	0.041
ppm Water	ppm	ASTM D6304	>1669	<b>695</b>	435	418

### FLUID CLEANLINESS

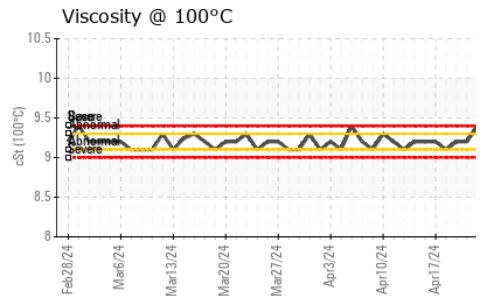
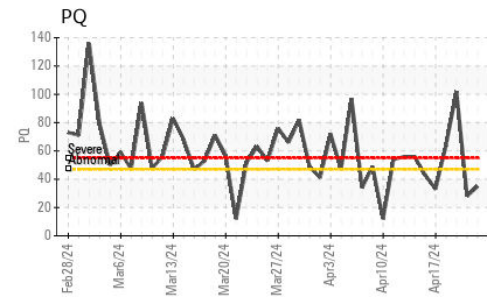
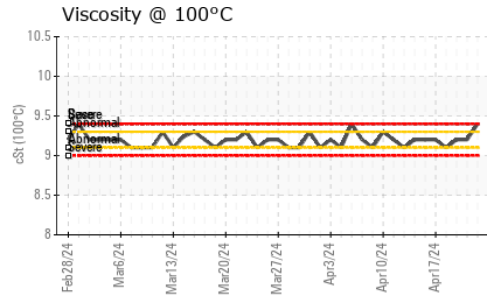
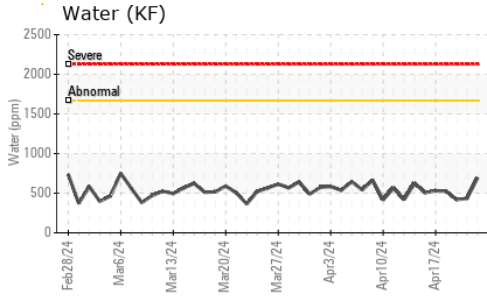
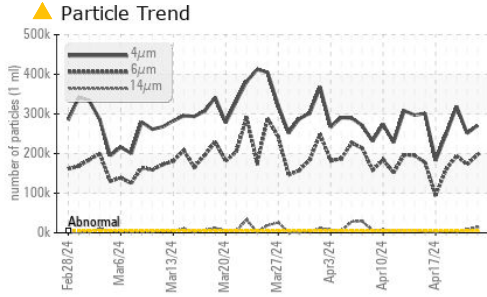
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 271043</b>	▲ 251339	▲ 318709
Particles >6µm	ASTM D7647	>1300	<b>▲ 197083</b>	▲ 172735	▲ 194189
Particles >14µm	ASTM D7647	>160	<b>▲ 14471</b>	▲ 7999	▲ 3262
Particles >21µm	ASTM D7647	>40	<b>▲ 937</b>	▲ 426	▲ 87
Particles >38µm	ASTM D7647	>10	<b>▲ 13</b>	4	1
Particles >71µm	ASTM D7647	>3	<b>▲ 1</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 25/25/21</b>	▲ 25/25/20	▲ 25/25/19

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	<b>1.05</b>	0.95	0.81



# OIL ANALYSIS REPORT



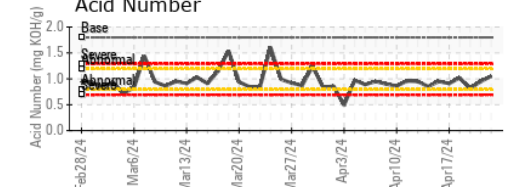
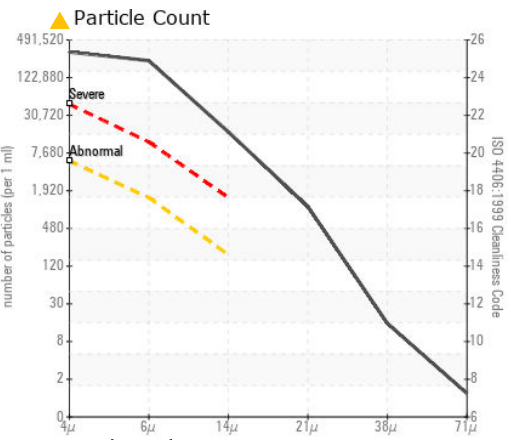
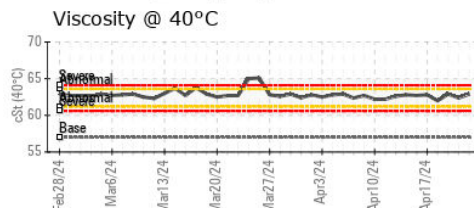
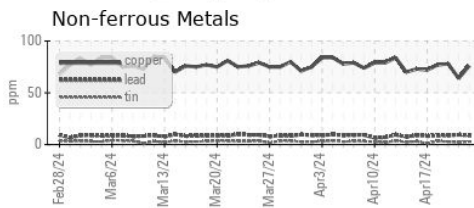
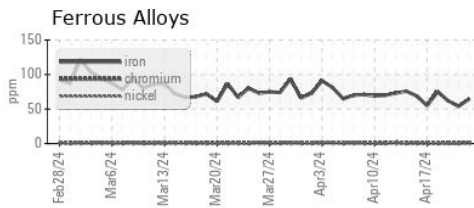
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	MODER	MODER
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1669	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	57.0	62.38	62.9
Visc @ 100°C	cSt	ASTM D445	9.4	9.2	9.2
Viscosity Index (VI)	Scale	ASTM D2270	147	125	124

### SAMPLE IMAGES

method	limit/base	current	history1	history2
Color				
Bottom				

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0929407 **Received** : 23 Apr 2024  
**Lab Number** : 06157694 **Tested** : 29 Apr 2024  
**Unique Number** : 10993117 **Diagnosed** : 29 Apr 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PQ, VI )

**WEARCHECK LUBRICATION SERVICES QA ACCOUNT**  
 501 Madison Ave  
 Cary, NC  
 US 27513  
 Contact: WCLS CARY NC

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)

T: (919)379-4102

F: (919)379-4050