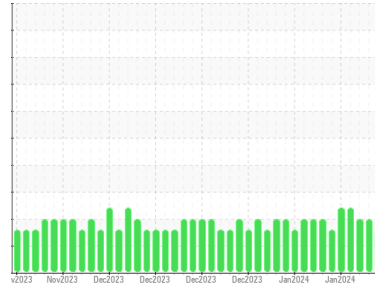




# OIL ANALYSIS REPORT

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>WC0895302</b>	WC0895301	WC0895300
Sample Date	Client Info		<b>18 Jan 2024</b>	17 Jan 2024	16 Jan 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>21</b>	55	91	
Iron	ppm	ASTM D5185m	>78	<b>54</b>	95	104
Chromium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m	>3	<b>1</b>	2	2
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>2</b>	3	3
Lead	ppm	ASTM D5185m	>11	<b>9</b>	9	10
Copper	ppm	ASTM D5185m	>84	<b>69</b>	79	78
Tin	ppm	ASTM D5185m	>4	<b>3</b>	3	4
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	6	<b>87</b>	101	93
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>16</b>	24	24
Magnesium	ppm	ASTM D5185m	145	<b>24</b>	21	18
Calcium	ppm	ASTM D5185m	3570	<b>3215</b>	3941	3260
Phosphorus	ppm	ASTM D5185m	1290	<b>1152</b>	1183	1159
Zinc	ppm	ASTM D5185m	1640	<b>1363</b>	1412	1415
Sulfur	ppm	ASTM D5185m		<b>3116</b>	3507	3208

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>11	<b>8</b>	11	11
Sodium	ppm	ASTM D5185m	>23	<b>16</b>	20	20
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	0
Water	%	ASTM D6304	>0.1669	<b>0.064</b>	0.068	0.008
ppm Water	ppm	ASTM D6304	>1669	<b>642</b>	681	90

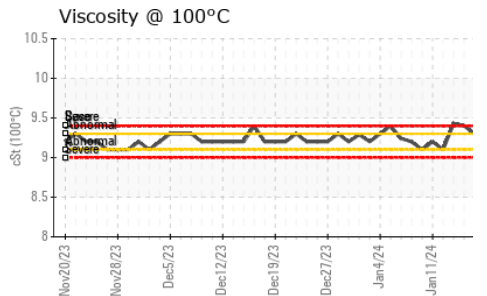
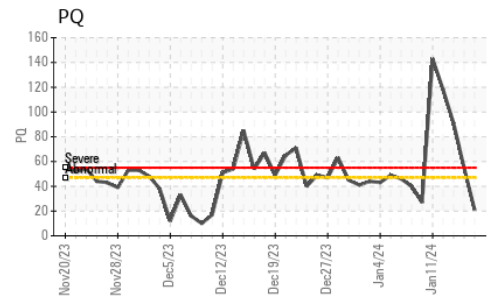
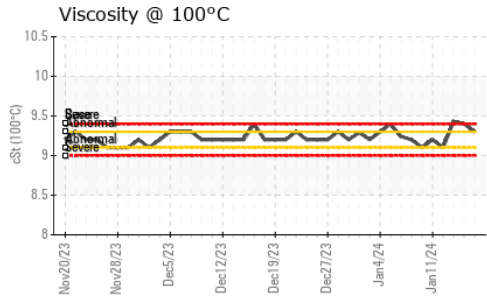
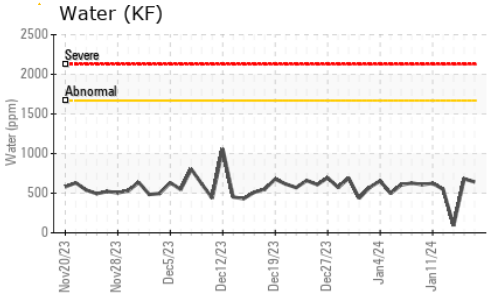
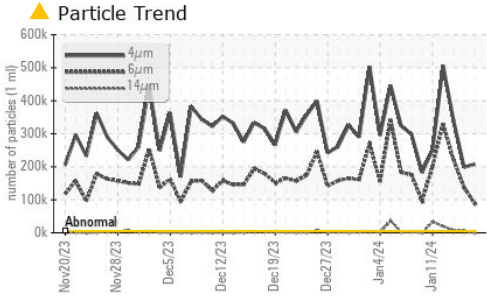
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 207895</b>	▲ 198271	▲ 339828
Particles >6µm	ASTM D7647	>1300	<b>▲ 88734</b>	▲ 137309	▲ 221421
Particles >14µm	ASTM D7647	>160	<b>▲ 163</b>	▲ 5979	▲ 7443
Particles >21µm	ASTM D7647	>40	<b>4</b>	▲ 170	▲ 578
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	8
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 25/24/15</b>	▲ 25/24/20	▲ 26/25/20

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	<b>0.85</b>	1.043	0.766

# OIL ANALYSIS REPORT

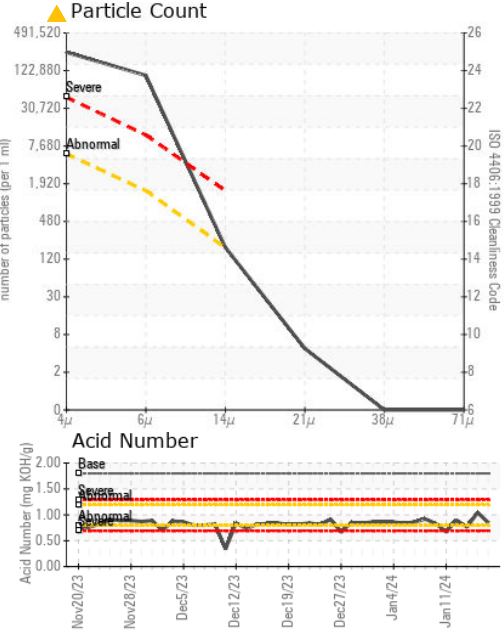
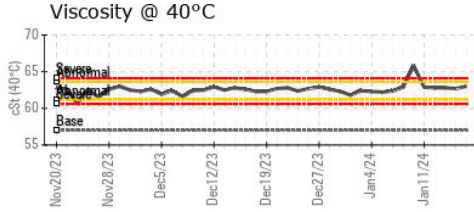
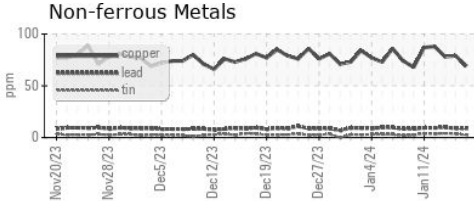
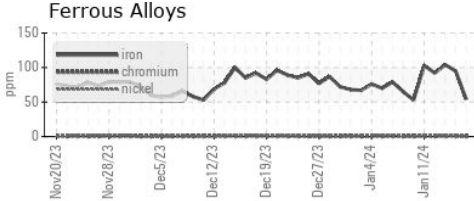


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	MODER	MODER
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1669	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	57.0	63.0	62.7
Visc @ 100°C	cSt	ASTM D445	9.4	9.3	9.43
Viscosity Index (VI)	Scale	ASTM D2270	147	126	129

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0895302  
**Lab Number** : 06064342  
**Unique Number** : 10835724  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PQ, VI )  
**Received** : 18 Jan 2024  
**Tested** : 19 Jan 2024  
**Diagnosed** : 09 Feb 2024 - Sean Felton

**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)