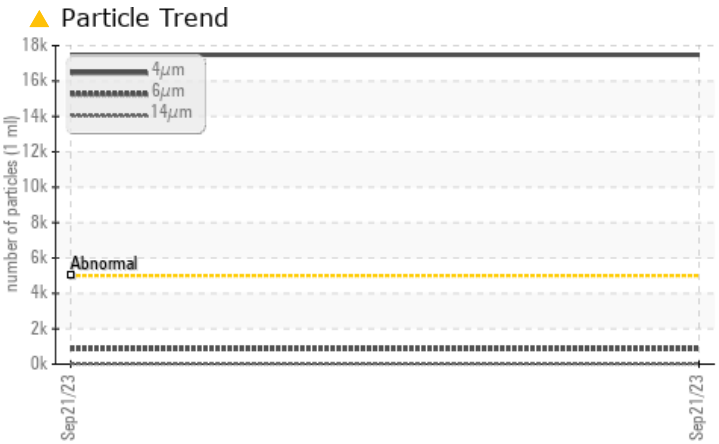
PROBLEM SUMMARY

Area
HYDRAULIC OIL RESERVOIR BOTTOM DRAIN VALVE
Machine Id
JOHN DEERE CP910 MY23
Component
Hydraulic System
Fluid
JOHN DEERE HY-GARD HYD/TRANS (150 GAL)

Sample Rating Trend

ISO

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: New machine sitting for at least one day ready to ship.. Did not have filter during ride & drive. Collected out of bottom of hyd reservoir drain valve by removing N410204 drain hose and hose clamp.)

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	---	---
Particles >4µm		ASTM D7647	>5000	▲ **17481**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/17/12**	---	---

Customer Id: JOHJOHUS
Sample No.: WC0818510
Lab Number: 05966189
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend

ISO

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DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: New machine sitting for at least one day ready to ship.. Did not have filter during ride & drive. Collected out of bottom of hyd reservoir drain valve by removing N410204 drain hose and hose clamp.)

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) 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		**WC0818510**	---	---
Sample Date		Client Info		**21 Sep 2023**	---	---
Machine Age	hrs	Client Info		**2**	---	---
Oil Age	hrs	Client Info		**2**	---	---
Oil Changed		Client Info		**Changed**	---	---
Sample Status				**ABNORMAL**	---	---

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**19**	---	---
Iron	ppm	ASTM D5185m	>20	**2**	---	---
Chromium	ppm	ASTM D5185m	>10	**<1**	---	---
Nickel	ppm	ASTM D5185m	>10	**<1**	---	---
Titanium	ppm	ASTM D5185m		**0**	---	---
Silver	ppm	ASTM D5185m		**0**	---	---
Aluminum	ppm	ASTM D5185m	>10	**2**	---	---
Lead	ppm	ASTM D5185m	>10	**<1**	---	---
Copper	ppm	ASTM D5185m	>75	**1**	---	---
Tin	ppm	ASTM D5185m	>10	**0**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6	**0**	---	---
Barium	ppm	ASTM D5185m	0	**0**	---	---
Molybdenum	ppm	ASTM D5185m	0	**<1**	---	---
Manganese	ppm	ASTM D5185m		**<1**	---	---
Magnesium	ppm	ASTM D5185m	145	**108**	---	---
Calcium	ppm	ASTM D5185m	3570	**3409**	---	---
Phosphorus	ppm	ASTM D5185m	1290	**1052**	---	---
Zinc	ppm	ASTM D5185m	1640	**1301**	---	---
Sulfur	ppm	ASTM D5185m		**3964**	---	---

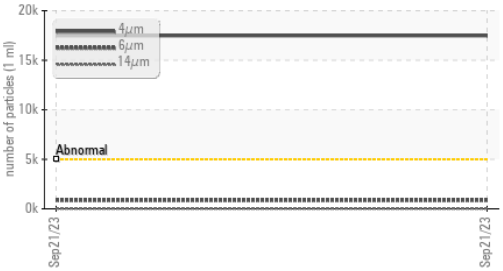
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**10**	---	---
Sodium	ppm	ASTM D5185m		**0**	---	---
Potassium	ppm	ASTM D5185m	>20	**2**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **17481**	---	---
Particles >6µm		ASTM D7647	>1300	**868**	---	---
Particles >14µm		ASTM D7647	>160	**27**	---	---
Particles >21µm		ASTM D7647	>40	**6**	---	---
Particles >38µm		ASTM D7647	>10	**2**	---	---
Particles >71µm		ASTM D7647	>3	**1**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/17/12**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	**1.27**	---	---

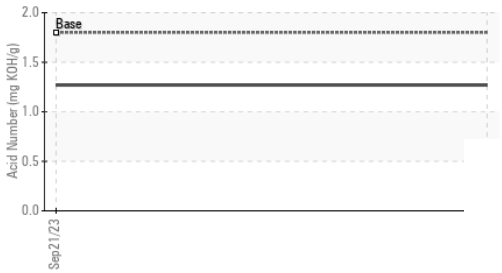
OIL ANALYSIS REPORT

Particle Trend

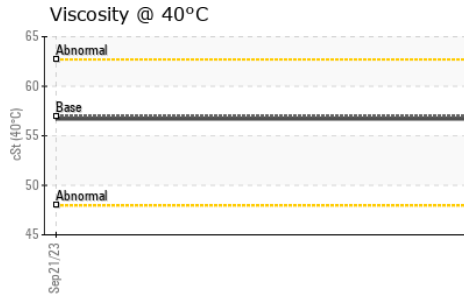


PQ

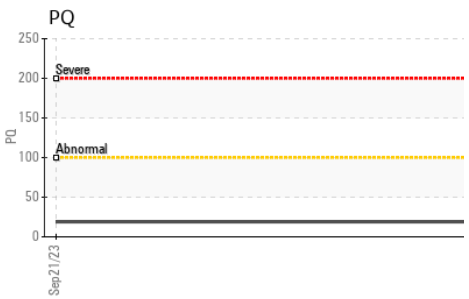
Acid Number



Viscosity @ 40°C

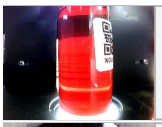


PQ



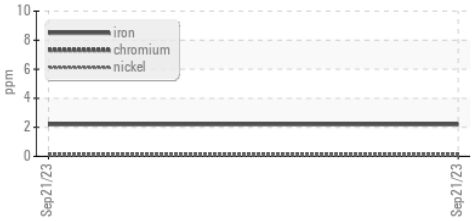
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	**NORML**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.1	**NEG**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	57.0	**56.7**	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

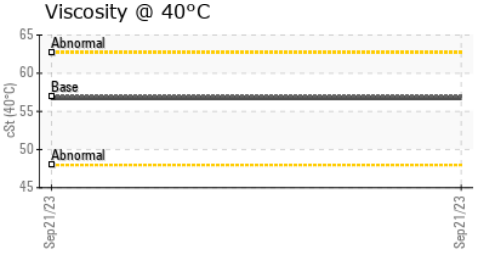
GRAPHS

Ferrous Alloys

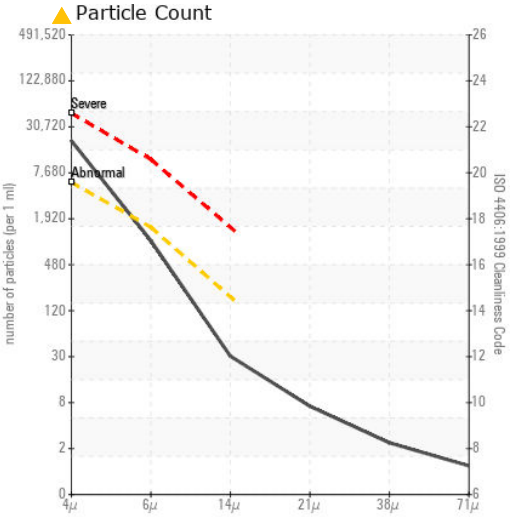


Non-ferrous Metals

Viscosity @ 40°C



Particle Count



Acid Number

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0818510 **Received** : 02 Oct 2023
Lab Number : 05966189 **Diagnosed** : 03 Oct 2023
Unique Number : 10672740 **Diagnostician** : Don Baldridge
Test Package : CONST (Additional Tests: PQ, PrtCount)

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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