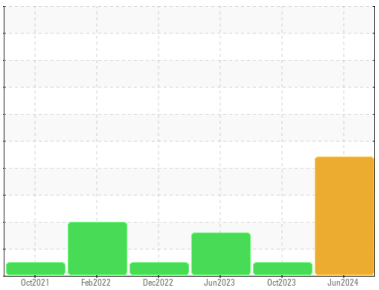
PROBLEM SUMMARY

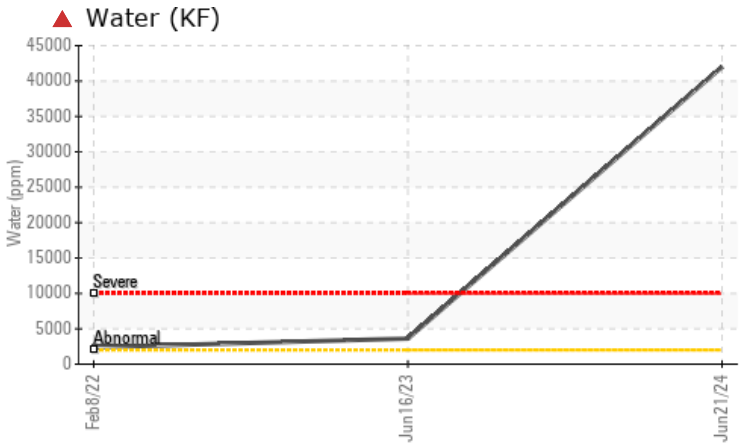
Sample Rating Trend



WATER

Area
[05W47555]
Machine Id
JOHN DEERE PM061171
Component
Rear Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (8 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of water entry. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: Check for water and metal shavings)

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	ABNORMAL
Water	%	ASTM D6304	>.2	▲ **4.20**	---	▲ 0.362
ppm Water	ppm	ASTM D6304	>2000	▲ **42000**	---	▲ 3620
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Emulsified Water	scalar	*Visual	>.2	▲ **0.2%**	NEG	0.2%

Customer Id: FITWINVA
Sample No.: JR0218315
Lab Number: 06220017
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

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.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

NORMAL

23 Oct 2023 Diag: Sean Felton
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

WATER

16 Jun 2023 Diag: Sean Felton
We advise that you check for the source of water entry. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a light concentration of water present in the oil. The condition of the oil is acceptable for the time in service.

view report

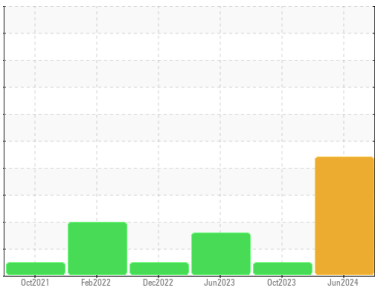
NORMAL

28 Dec 2022 Diag: Don Baldridge
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
[05W47555]
Machine Id
JOHN DEERE PM061171
Component
Rear Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (8 GAL)

DIAGNOSIS

▲ Recommendation
We advise that you check for the source of water entry. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: Check for water and metal shavings)

Wear
All component wear rates are normal.

▲ Contamination
Appearance is milky. There is a high concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**JR0218315**	JR0190179	JR0176359
Sample Date		Client Info		**21 Jun 2024**	23 Oct 2023	16 Jun 2023
Machine Age	hrs	Client Info		**2994**	2451	1457
Oil Age	hrs	Client Info		**1000**	0	2000
Oil Changed		Client Info		**Changed**	Not Changd	Changed
Sample Status				**SEVERE**	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**246**	20	65
Iron	ppm	ASTM D5185m	>500	**241**	15	76
Chromium	ppm	ASTM D5185m	>10	**2**	0	<1
Nickel	ppm	ASTM D5185m	>10	**2**	0	<1
Titanium	ppm	ASTM D5185m		**1**	0	<1
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>25	**6**	<1	<1
Lead	ppm	ASTM D5185m	>25	**<1**	<1	0
Copper	ppm	ASTM D5185m	>100	**17**	4	10
Tin	ppm	ASTM D5185m	>10	**2**	<1	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

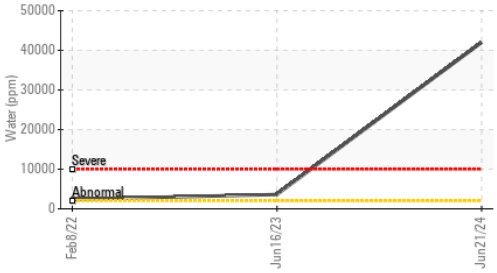
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6	**32**	8	11
Barium	ppm	ASTM D5185m	0	**0**	0	6
Molybdenum	ppm	ASTM D5185m	0	**15**	5	10
Manganese	ppm	ASTM D5185m		**4**	<1	2
Magnesium	ppm	ASTM D5185m	145	**169**	109	138
Calcium	ppm	ASTM D5185m	3570	**3233**	3150	3456
Phosphorus	ppm	ASTM D5185m	1290	**1079**	1023	1079
Zinc	ppm	ASTM D5185m	1640	**1295**	1209	1284
Sulfur	ppm	ASTM D5185m		**3630**	3610	4260

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	**18**	4	10
Sodium	ppm	ASTM D5185m		**7**	<1	3
Potassium	ppm	ASTM D5185m	>20	**2**	0	<1
Water	%	ASTM D6304	>.2	▲ **4.20**	---	▲ 0.362
ppm Water	ppm	ASTM D6304	>2000	▲ **42000**	---	▲ 3620

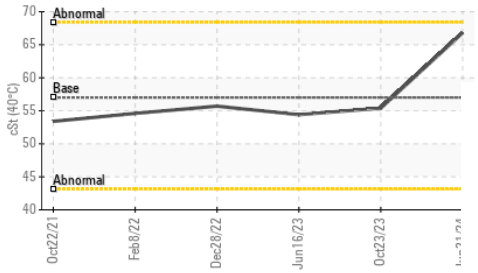
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**MODER**	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	● **MILKY**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	▲ **0.2%**	NEG	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

OIL ANALYSIS REPORT

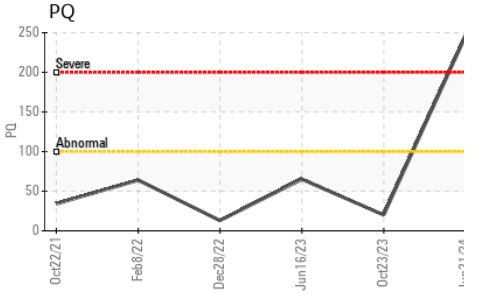
Water (KF)



Viscosity @ 40°C



PQ

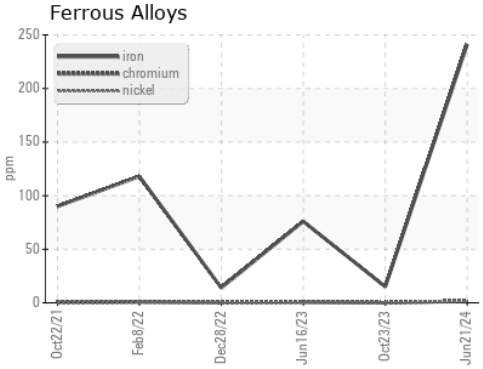


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	57.0	**66.8**	55.4	54.4

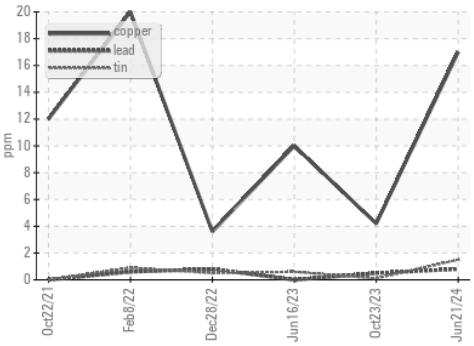
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

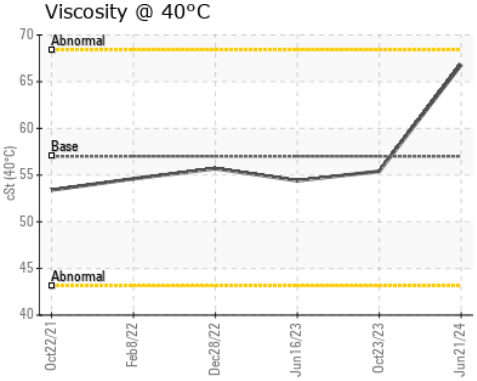
Ferrous Alloys



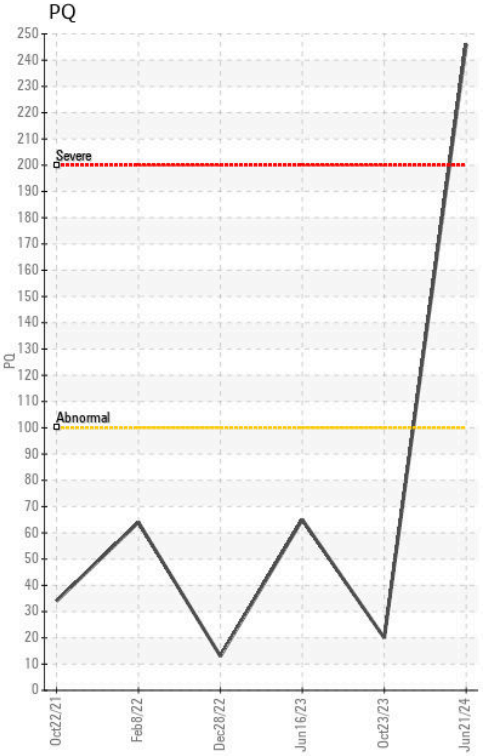
Non-ferrous Metals



Viscosity @ 40°C



PQ



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218315
Lab Number : 06220017
Unique Number : 11098214
Test Package : CONST (Additional Tests: KF, PQ)

Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 26 Jun 2024 - Sean Felton

FITZGERALD EXCAVATING
PO BOX 2168
WINCHESTER, VA
US 22604
Contact: Service Manager
T:
F:

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)