



WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 644 X 1DW644XACPFW18652

Component
Front Differential

Fluid
TDH FLUID SAE 75W80 (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0194506	JR0187153	---
Sample Date		Client Info		20 Dec 2023	11 Oct 2023	---
Machine Age	hrs	Client Info		1175	740	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				SEVERE	NORMAL	---

WEAR

Clutch and/or bushing/bearing wear is indicated.

PQ		ASTM D8184		22	21	---
Iron	ppm	ASTM D5185m	>500	75	44	---
Chromium	ppm	ASTM D5185m	>10	<1	0	---
Nickel	ppm	ASTM D5185m	>10	1	<1	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>25	3	<1	---
Lead	ppm	ASTM D5185m	>25	126	62	---
Copper	ppm	ASTM D5185m	>100	685	171	---
Tin	ppm	ASTM D5185m	>10	61	6	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

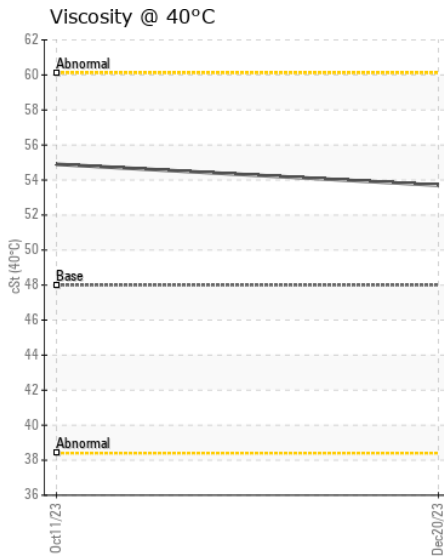
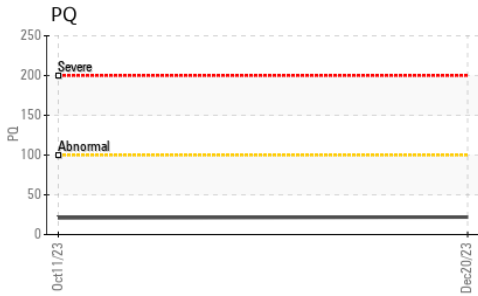
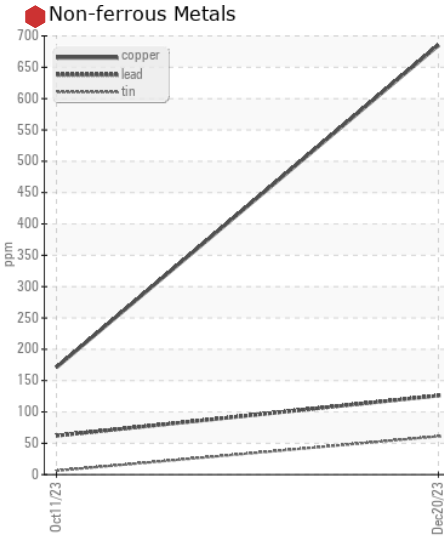
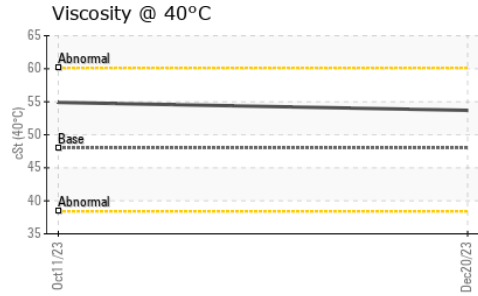
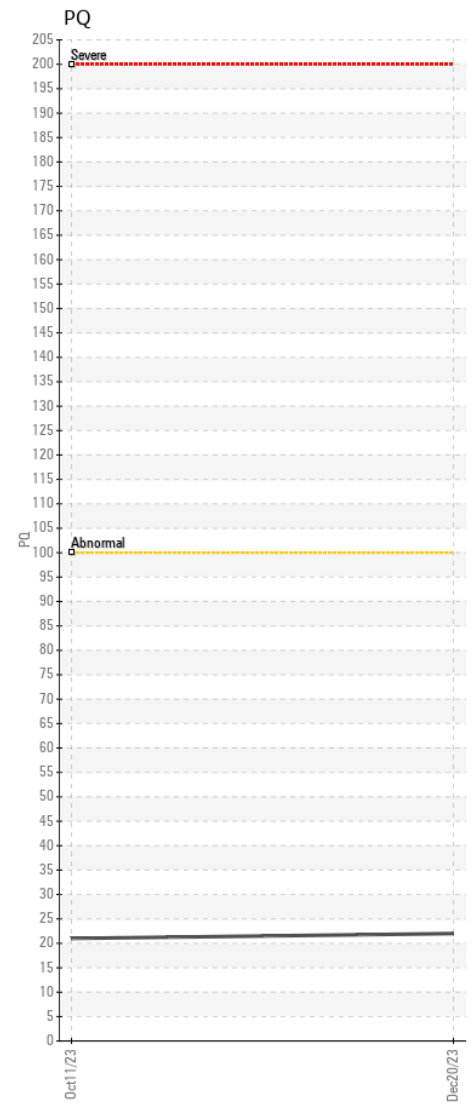
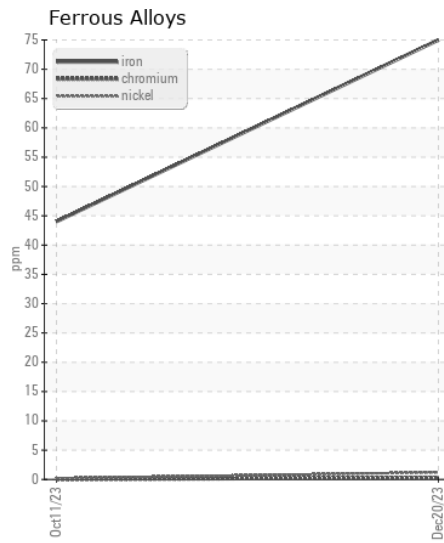
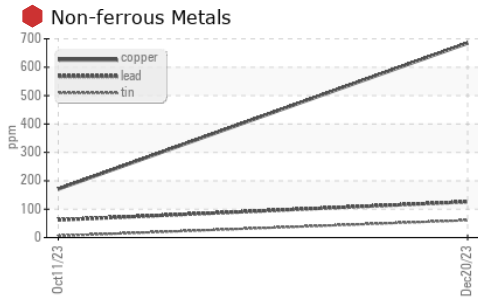
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	4	4	---
Potassium	ppm	ASTM D5185m	>20	3	0	---
Water		WC Method	>.2	NEG	NEG	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
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	>.2	NEG	NEG	---

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185m		2	3	---
Boron	ppm	ASTM D5185m	10	2	2	---
Barium	ppm	ASTM D5185m	10	0	4	---
Molybdenum	ppm	ASTM D5185m	10	<1	0	---
Manganese	ppm	ASTM D5185m		2	2	---
Magnesium	ppm	ASTM D5185m	100	98	94	---
Calcium	ppm	ASTM D5185m	3500	3419	3407	---
Phosphorus	ppm	ASTM D5185m	1150	1035	991	---
Zinc	ppm	ASTM D5185m	1150	1176	1167	---
Sulfur	ppm	ASTM D5185m	5000	3975	3540	---
Visc @ 40°C	cSt	ASTM D445	48	53.7	54.9	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0194506 **Received** : 21 Dec 2023
Lab Number : 06042348 **Tested** : 22 Dec 2023
Unique Number : 10802956 **Diagnosed** : 23 Dec 2023 - Don Baldrige
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)