



WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
[HOWARD SHOCKEY]
 Machine Id
JOHN DEERE 310G C043444 (S/N T0310GX940601)
 Component
Hydraulic System
 Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0221312	JR0067187	---
Sample Date		Client Info		12 Jul 2024	10 Nov 2020	---
Machine Age	hrs	Client Info		7356	7081	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

The iron level is abnormal. The chromium level is abnormal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	▲ 42	▲ 57	---
Chromium	ppm	ASTM D5185m	>10	▲ 26	▲ 54	---
Nickel	ppm	ASTM D5185m	>10	<1	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		0	<1	---
Aluminum	ppm	ASTM D5185m	>10	6	4	---
Lead	ppm	ASTM D5185m	>10	<1	1	---
Copper	ppm	ASTM D5185m	>75	18	33	---
Tin	ppm	ASTM D5185m	>10	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

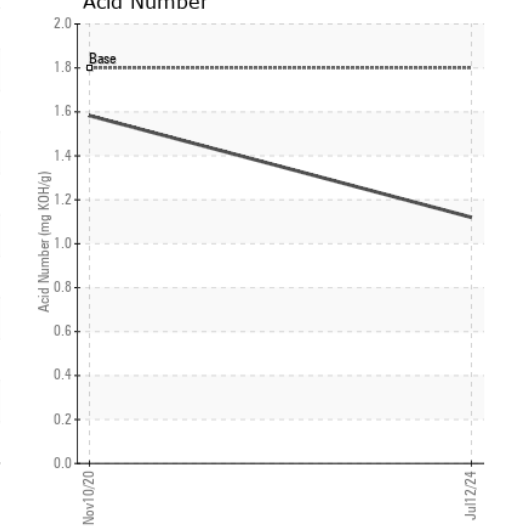
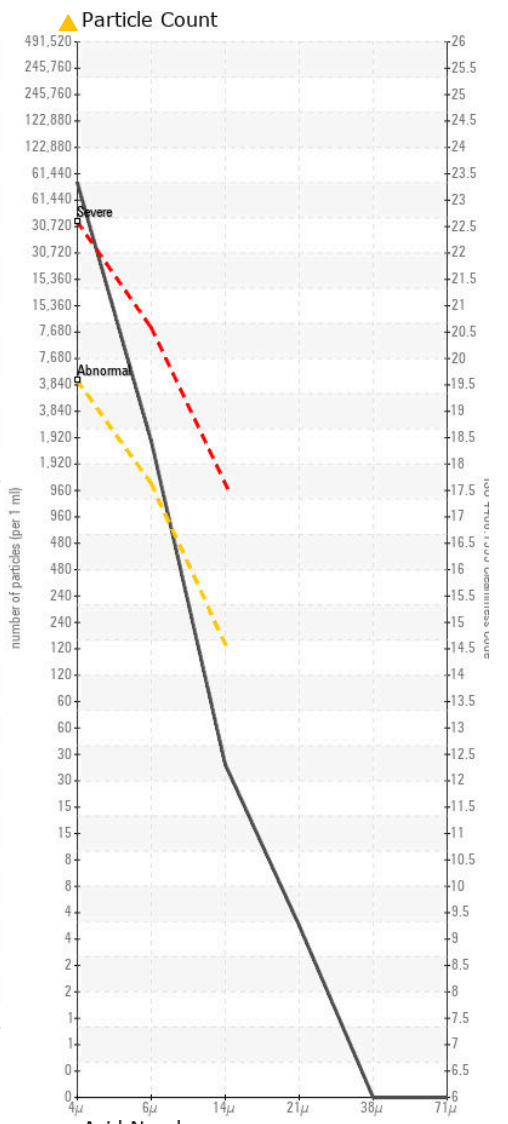
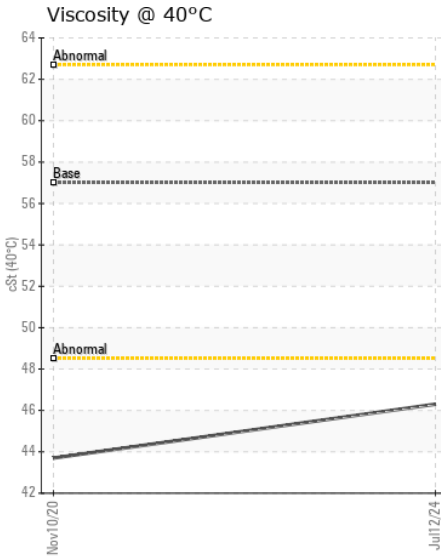
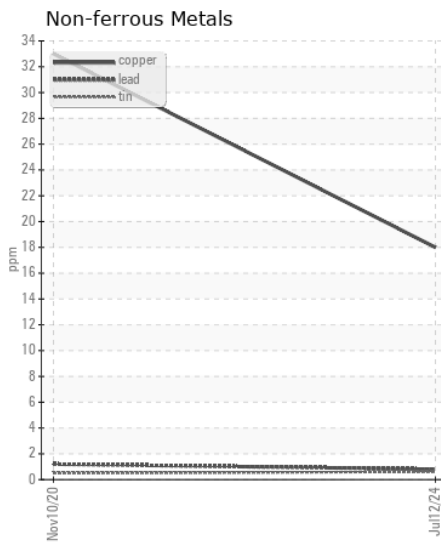
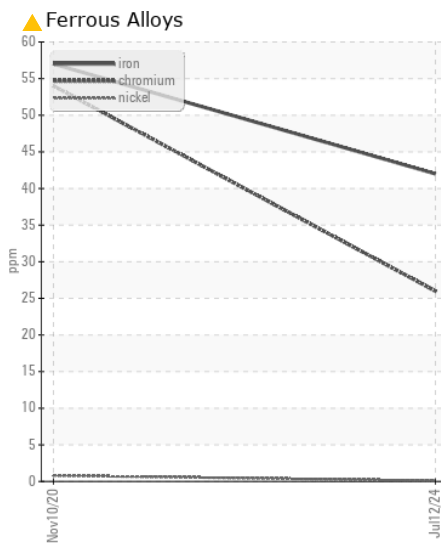
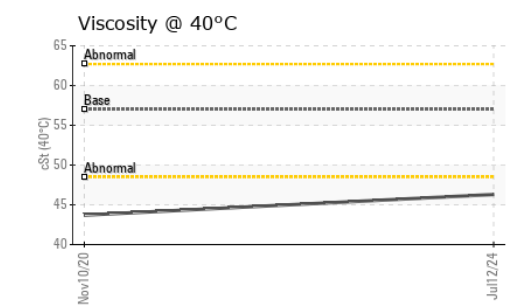
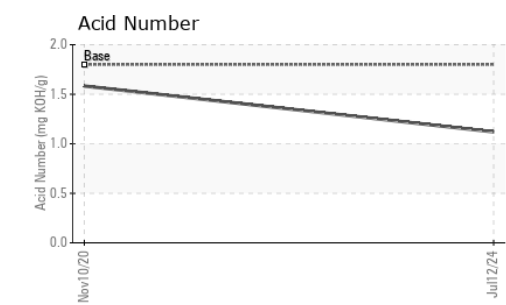
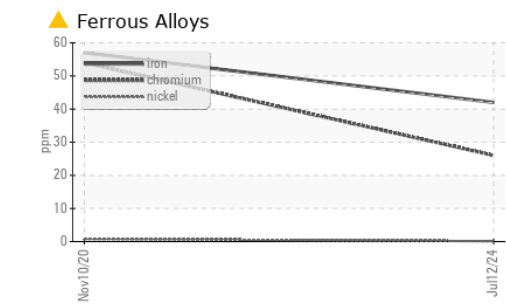
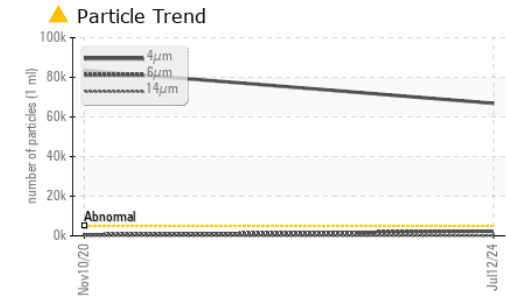
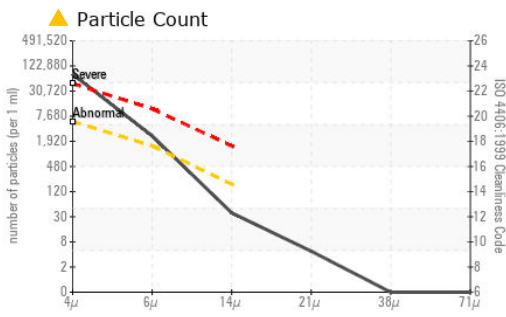
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	13	15	---
Potassium	ppm	ASTM D5185m	>20	3	6	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	▲ 66882	▲ 83465	---
Particles >6µm		ASTM D7647	>1300	▲ 2272	501	---
Particles >14µm		ASTM D7647	>160	33	22	---
Particles >21µm		ASTM D7647	>40	4	8	---
Particles >38µm		ASTM D7647	>10	0	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 23/18/12	▲ 24/16/12	---
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	>0.1	NEG	NEG	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		5	3	---
Boron	ppm	ASTM D5185m	6	0	6	---
Barium	ppm	ASTM D5185m	0	0	<1	---
Molybdenum	ppm	ASTM D5185m	0	4	1	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	145	105	84	---
Calcium	ppm	ASTM D5185m	3570	3077	2931	---
Phosphorus	ppm	ASTM D5185m	1290	1008	920	---
Zinc	ppm	ASTM D5185m	1640	1121	1142	---
Sulfur	ppm	ASTM D5185m		3711	2749	---
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	1.12	1.583	---
Visc @ 40°C	cSt	ASTM D445	57.0	46.3	43.7	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0221312 **Received** : 16 Jul 2024
Lab Number : 06237662 **Tested** : 17 Jul 2024
Unique Number : 11126496 **Diagnosed** : 18 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

JRE - STEPHENSON
 245 YARDMASTER COURT
 STEPHENSON, VA
 US 22656-1761
 Contact: PHIL DAUGHERTY
 pdaugherty@jamesriverequipment.com

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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