



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**1FF245GXCMF802178**

Component  
**Hydraulic System**

Fluid  
**JOHN DEERE ZINC-FREE HYDRAULIC OIL 46 (--- QTS)**

### RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0203002	JR0195842	---
Sample Date		Client Info		21 Feb 2024	29 Dec 2023	---
Machine Age	hrs	Client Info		4071	3830	---
Oil Age	hrs	Client Info		4071	3830	---
Filter Age	hrs	Client Info		4071	3830	---
Oil Changed		Client Info		Not Chngd	Not Chngd	---
Filter Changed		Client Info		Changed	Not Chngd	---
Sample Status				ABNORMAL	ABNORMAL	---

### WEAR

All component wear rates are normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		16	12	---
Iron	ppm	ASTM D5185m	>20	9	12	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	0	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	1	2	---
Lead	ppm	ASTM D5185m	>10	<1	2	---
Copper	ppm	ASTM D5185m	>75	6	7	---
Tin	ppm	ASTM D5185m	>10	1	2	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

### CONTAMINATION

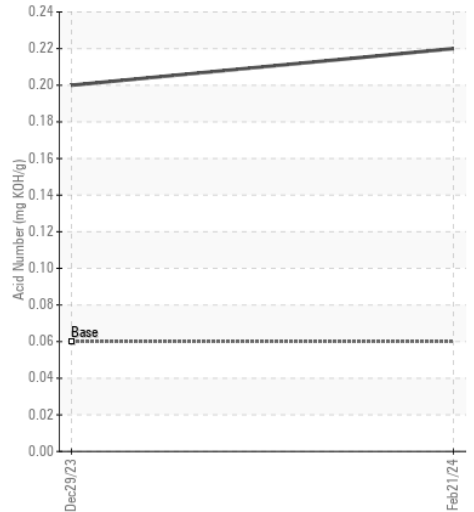
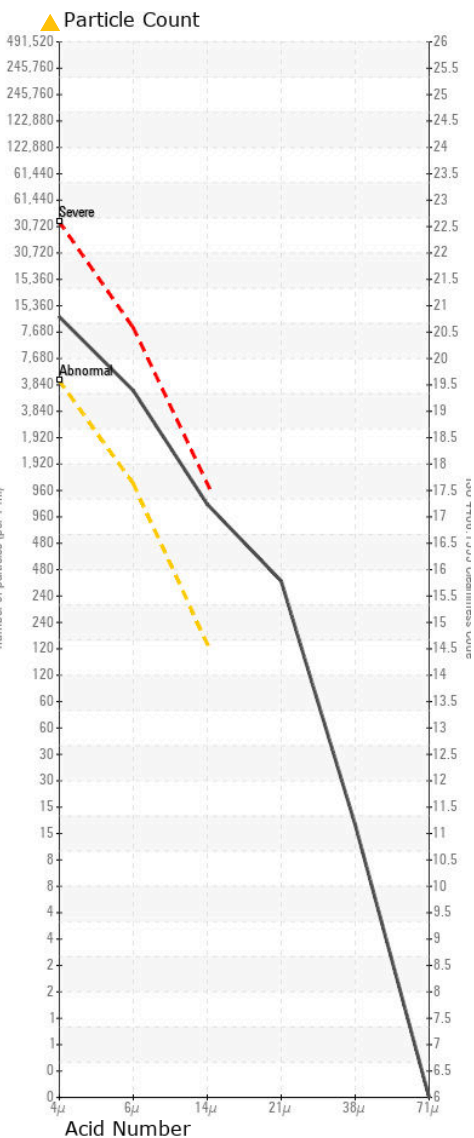
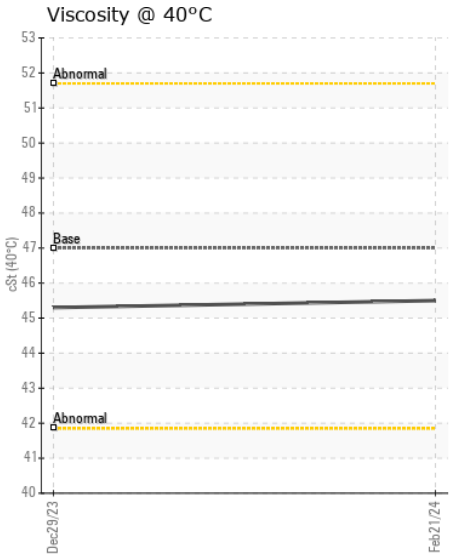
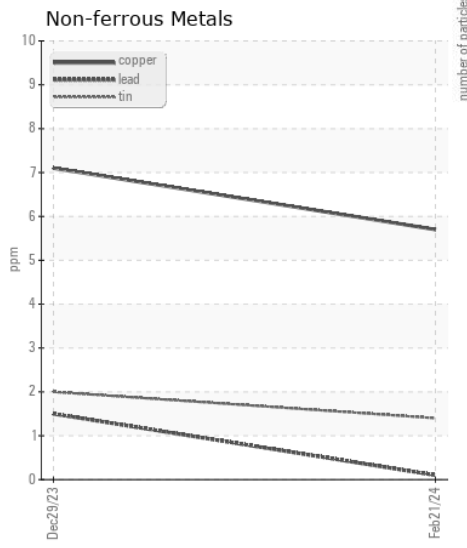
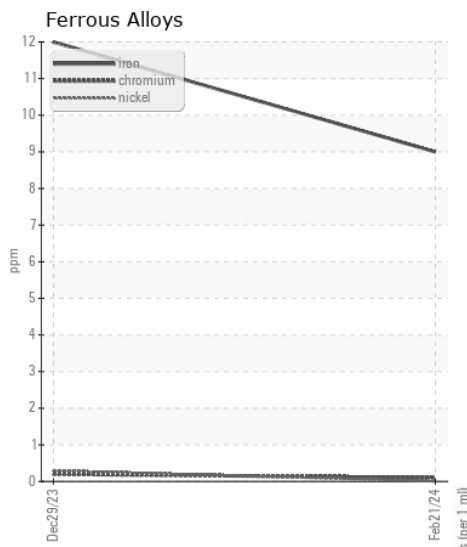
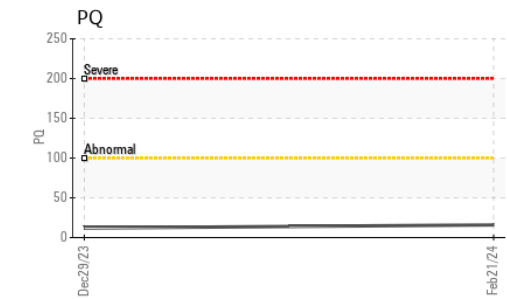
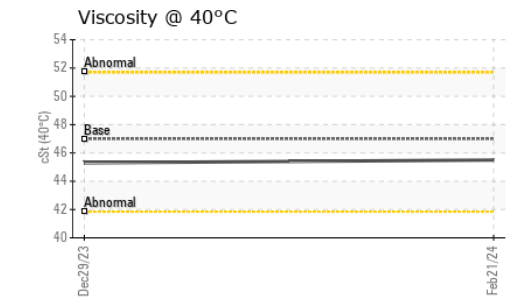
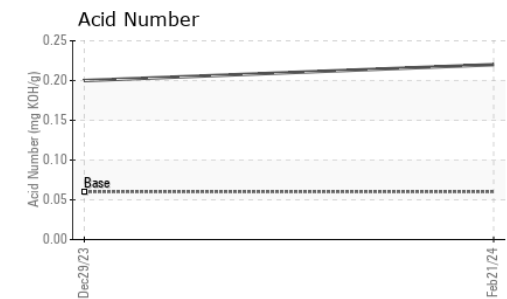
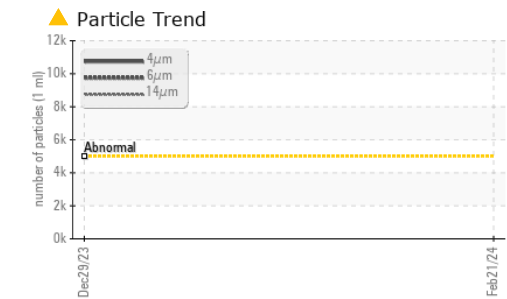
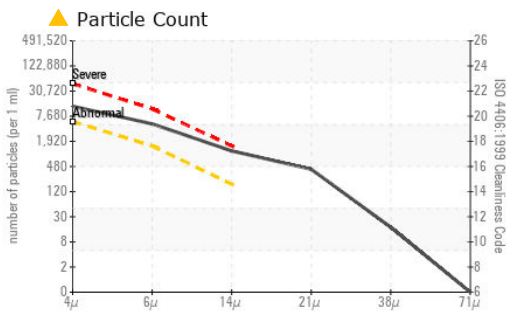
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	2	3	---
Potassium	ppm	ASTM D5185m	>20	0	2	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	▲ 11529	---	---
Particles >6µm		ASTM D7647	>1300	▲ 4391	---	---
Particles >14µm		ASTM D7647	>160	▲ 993	---	---
Particles >21µm		ASTM D7647	>40	▲ 363	---	---
Particles >38µm		ASTM D7647	>10	▲ 15	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/19/17	---	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	▲ MODER	---
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 suitable for further service.

Sodium	ppm	ASTM D5185m		1	0	---
Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		<1	8	---
Molybdenum	ppm	ASTM D5185m		0	<1	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		<1	<1	---
Calcium	ppm	ASTM D5185m		14	6	---
Phosphorus	ppm	ASTM D5185m		464	517	---
Zinc	ppm	ASTM D5185m		36	36	---
Sulfur	ppm	ASTM D5185m		758	863	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.22	0.20	---
Visc @ 40°C	cSt	ASTM D445	47	45.5	45.3	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0203002

Lab Number : 06097612

Unique Number : 10890465

Test Package : CONST ( Additional Tests: PQ )

Received : 22 Feb 2024

Tested : 23 Feb 2024

Diagnosed : 25 Feb 2024 - Don Baldrige

JRE - MANASSAS PARK

9107 OWENS DRIVE

MANASSAS PARK, VA

US 20111

Contact: TECHNICIAN ACCOUNT

catherine.anastasio@wearcheck.com

T:

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)

F: (703)631-4715