



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 1FF350PACNF000297

Component
Hydraulic System

Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0182300	JR0168659	---
Sample Date		Client Info		17 Aug 2023	01 May 2023	---
Machine Age	hrs	Client Info		1021	587	---
Oil Age	hrs	Client Info		1021	587	---
Filter Age	hrs	Client Info		1021	587	---
Oil Changed		Client Info		Not Changed	Not Changed	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	9	12	---
Iron	ppm	ASTM D5185m	>32	3	1	---
Chromium	ppm	ASTM D5185m	>9	0	0	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>9	<1	<1	---
Lead	ppm	ASTM D5185m	>28	0	0	---
Copper	ppm	ASTM D5185m	>50	2	2	---
Tin	ppm	ASTM D5185m	>5	0	0	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

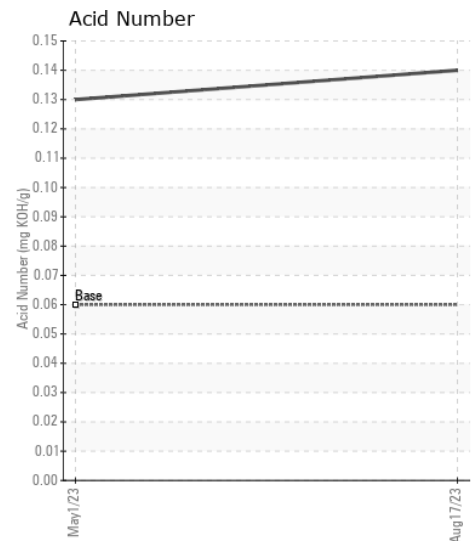
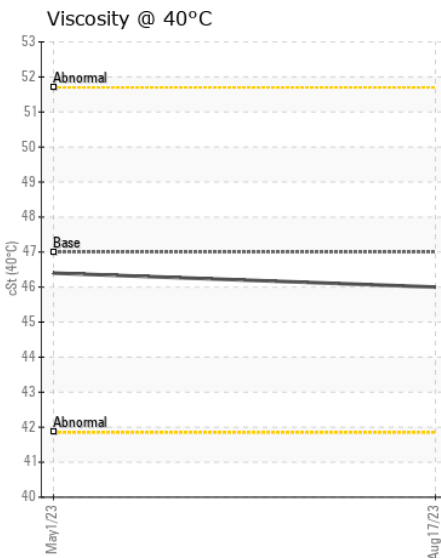
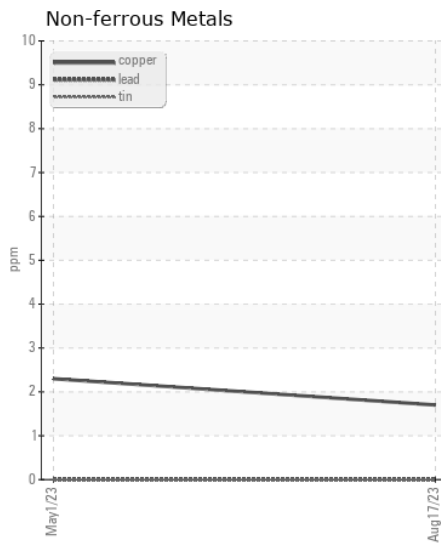
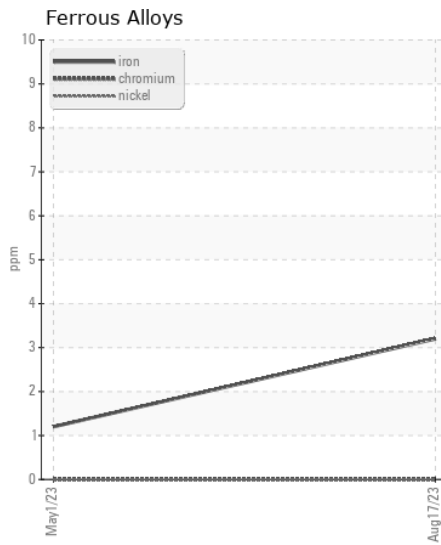
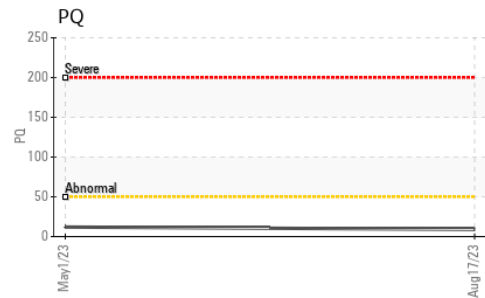
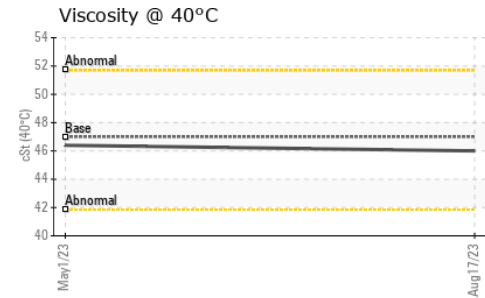
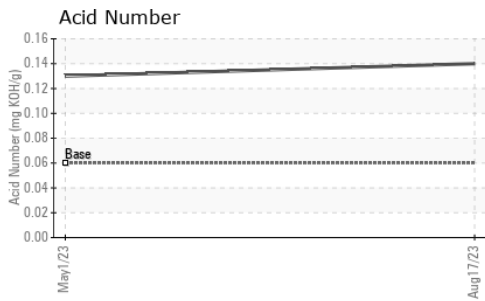
Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>11	1	0	---
Potassium	ppm	ASTM D5185m	>20	0	0	---
Water		WC Method	>0.075	NEG	NEG	---
Particles >4µm		ASTM D7647	>80000	---	2152	---
Particles >6µm		ASTM D7647	>20000	---	356	---
Particles >14µm		ASTM D7647	>640	---	21	---
Particles >21µm		ASTM D7647	>160	---	5	---
Particles >38µm		ASTM D7647	>40	---	1	---
Particles >71µm		ASTM D7647	>10	---	0	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	---	18/16/12	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	▲ MODER	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.075	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	>21	<1	0	---
Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		0	0	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		<1	0	---
Calcium	ppm	ASTM D5185m		0	0	---
Phosphorus	ppm	ASTM D5185m	827	521	519	---
Zinc	ppm	ASTM D5185m	0	19	9	---
Sulfur	ppm	ASTM D5185m	13	104	0	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.14	0.13	---
Visc @ 40°C	cSt	ASTM D445	47	46.0	46.4	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0182300 **Received** : 21 Aug 2023
Lab Number : 05929505 **Tested** : 22 Aug 2023
Unique Number : 10609452 **Diagnosed** : 22 Aug 2023 - Angela Borella
Test Package : CONST (Additional Tests: PQ)

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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