WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

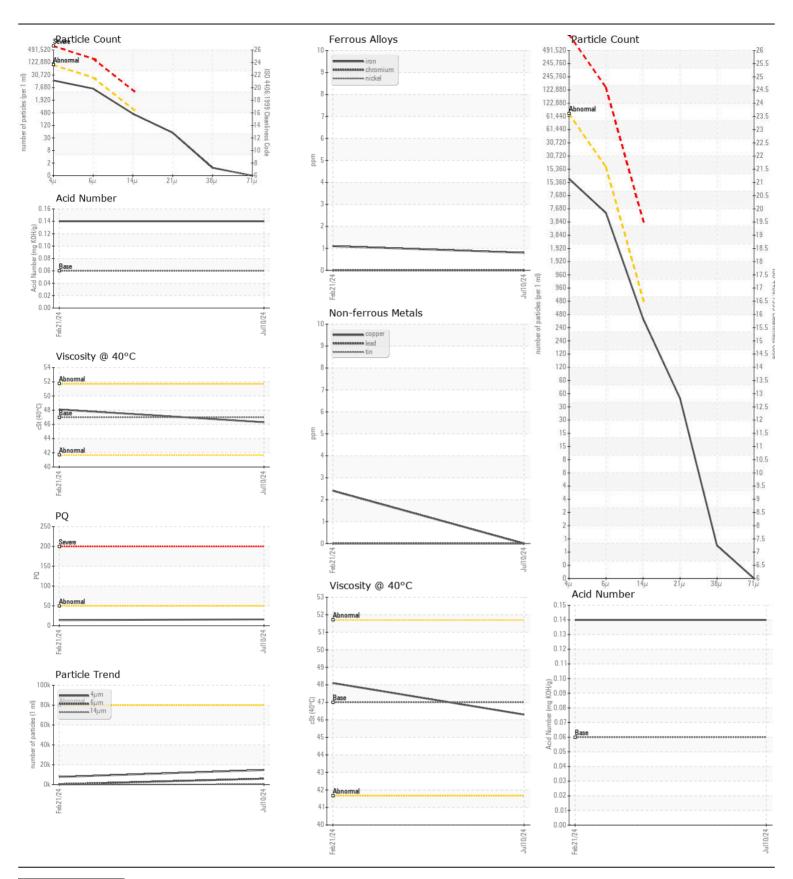
[47701]

JOHN DEERE 470 P 1FF470PAVPF000293

Hydraulic System

JOHN DEERE ZINC-FREE HYDRAULIC OIL 46 (65 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		JR0225359	JR0202998	
	Sample Date		Client Info		10 Jul 2024	21 Feb 2024	
	Machine Age	hrs	Client Info		983	492	
	Oil Age	hrs	Client Info		983	492	
	Filter Age	hrs	Client Info		0	492	
	Oil Changed		Client Info		Not Changd	Not Changd	
	Filter Changed		Client Info		Changed	Not Changd	
	Sample Status				NORMAL	NORMAL	
VEAR	PQ		ASTM D8184	>50	16	14	
	Iron	ppm	ASTM D5185m	>32	<1	1	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		0	0	
	Nickel	ppm	ASTM D5185m	>5	0	0	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m	>9	0	0	
	Lead	ppm	ASTM D5185m	>28	0	0	
	Copper	ppm	ASTM D5185m	>50	0	2	
	Tin	ppm	ASTM D5185m	>5	0	0	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>11	0	<1	
SITTAIMITATION	Potassium	ppm	ASTM D5185m		0	0	
There is no indication of any contamination in the oil.	Water	le le	WC Method		NEG	NEG	
	Particles >4µm		ASTM D7647		14709	7771	
	Particles >6μm		ASTM D7647		5994	448	
	Particles >14µm		ASTM D7647	>640	380	10	
	Particles >21µm		ASTM D7647	>160	47	2	
	Particles >38μm		ASTM D7647	>40	1	0	
	Particles >71µm		ASTM D7647	>10	0	0	
	Oil Cleanliness		ISO 4406 (c)	>23/21/16	21/20/16	20/16/10	
	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	>0.075	NEG	NEG	
LUID CONDITION	Sodium	ppm	ASTM D5185m	>21	<1	0	
	Boron	ppm	ASTM D5185m		0	0	
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185m		0	<1	
	Molybdenum	ppm	ASTM D5185m		0	0	
	Manganese	ppm	ASTM D5185m		0	0	
	Magnesium	ppm	ASTM D5185m		1	<1	
	Calcium	ppm	ASTM D5185m		5	4	
	Phosphorus	ppm	ASTM D5185m		604	530	
	Zinc	ppm	ASTM D5185m		42	26	
	Sulfur	ppm	ASTM D5185m		221	149	
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.14	0.14	
	Visc @ 40°C	cSt	ASTM D445		46.3	48.1	





Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 11116687

: JR0225359 : 06233194

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

Diagnosed

: 12 Jul 2024 : 12 Jul 2024 - Don Baldridge

: 11 Jul 2024

9107 OWENS DRIVE MANASSAS PARK, VA US 20111 Contact: DON VEST

JRE - MANASSAS PARK

Test Package : CONST (Additional Tests: PQ) To discuss this sample report, contact Customer Service at 1-800-237-1369. dvest@jamesriverequipment.com T: (703)631-8500

* - 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