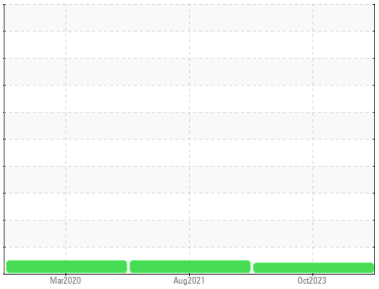
PROBLEM SUMMARY

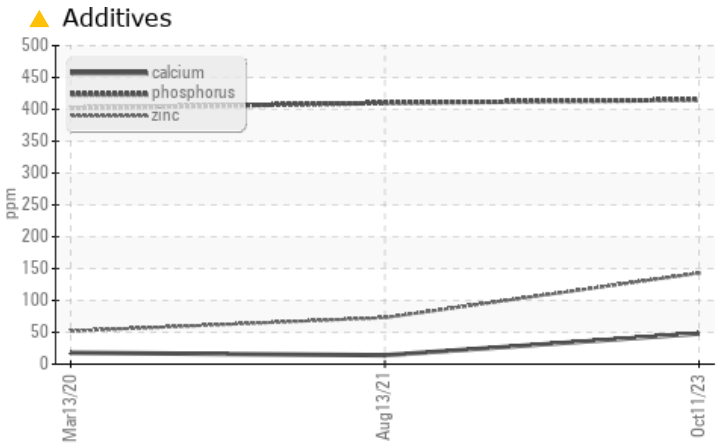
Sample Rating Trend



ADDITIVES

Machine Id
JOHN DEERE 50G 1FF050GXJJH288883
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil. Oil and filter change at the time of sampling has been noted.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	NORMAL
Zinc	ppm	ASTM D5185m	0	▲ **143**	73	52

Customer Id: JAMASH
Sample No.: JR0180550
Lab Number: 05978192
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted. Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.
Flush System	---	---	?	Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

13 Aug 2021 Diag: Jonathan Hester

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

13 Mar 2020 Diag: Jonathan Hester

NORMAL

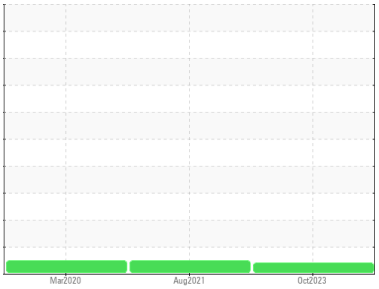
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

JAMES RIVER EQUIPMENT

OIL ANALYSIS REPORT

Sample Rating Trend



ADDITIVES

Machine Id
JOHN DEERE 50G 1FF050GXJJH288883
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

DIAGNOSIS

Recommendation
Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil. Oil and filter change at the time of sampling has been noted.

Wear
All component wear rates are normal.

Contamination
The amount and size of particulates present in the system are acceptable.

Fluid Condition
Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**JR0180550**	JR0088601	JR0040873
Sample Date		Client Info		**11 Oct 2023**	13 Aug 2021	13 Mar 2020
Machine Age	hrs	Client Info		**2174**	1435	772
Oil Age	hrs	Client Info		**2174**	1435	772
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	**16**	18	21
Iron	ppm	ASTM D5185m	>32	**11**	10	7
Chromium	ppm	ASTM D5185m	>9	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>5	**0**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>9	**1**	0	<1
Lead	ppm	ASTM D5185m	>28	**0**	1	<1
Copper	ppm	ASTM D5185m	>50	**11**	2	3
Tin	ppm	ASTM D5185m	>5	**0**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

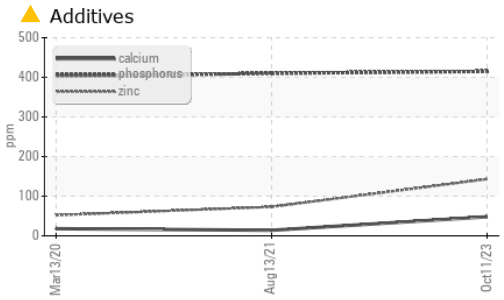
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	<1	<1
Barium	ppm	ASTM D5185m		**2**	0	<1
Molybdenum	ppm	ASTM D5185m		**1**	<1	<1
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**11**	6	6
Calcium	ppm	ASTM D5185m		**48**	14	18
Phosphorus	ppm	ASTM D5185m	827	**415**	410	402
Zinc	ppm	ASTM D5185m	0	▲ **143**	73	52
Sulfur	ppm	ASTM D5185m	13	**586**	674	579

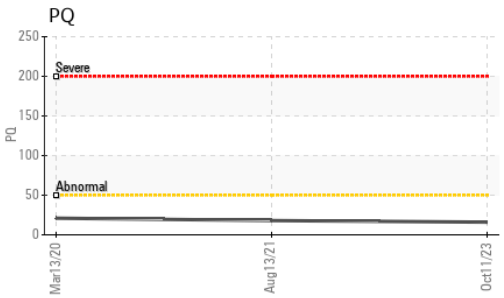
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>11	**4**	2	2
Sodium	ppm	ASTM D5185m	>21	**<1**	<1	1
Potassium	ppm	ASTM D5185m	>20	**0**	<1	<1

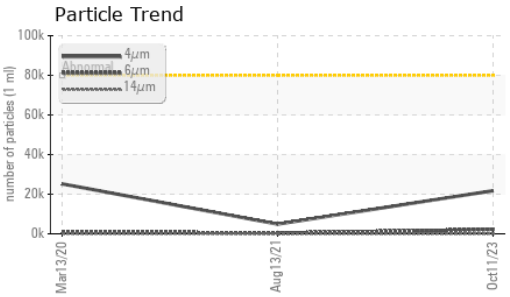
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>80000	**21757**	4891	25230
Particles >6µm		ASTM D7647	>20000	**2167**	344	1016
Particles >14µm		ASTM D7647	>640	**29**	14	11
Particles >21µm		ASTM D7647	>160	**6**	2	4
Particles >38µm		ASTM D7647	>40	**0**	0	0
Particles >71µm		ASTM D7647	>10	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	**22/18/12**	19/16/11	22/17/11

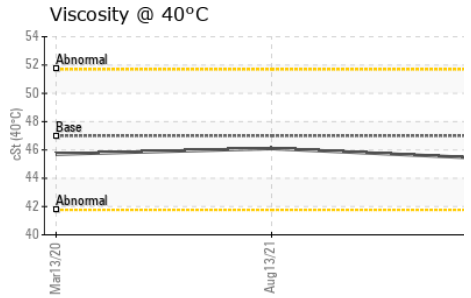
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	**0.23**	0.176	0.150

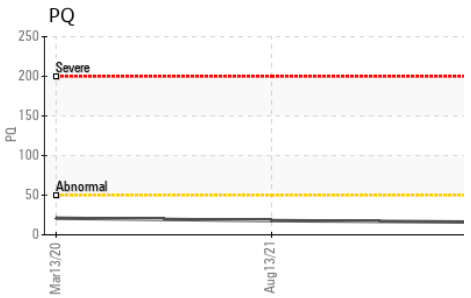
OIL ANALYSIS REPORT





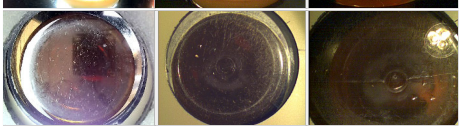




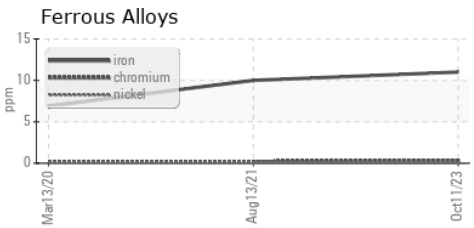


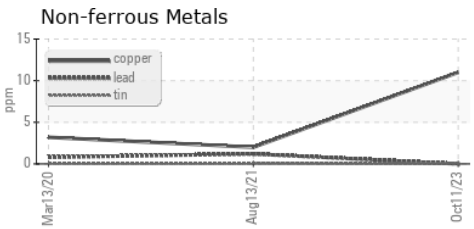
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

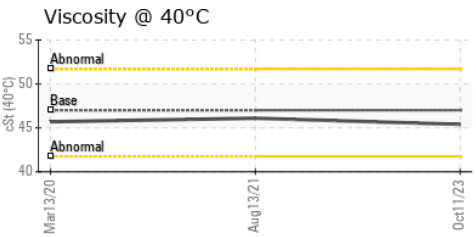
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	47	**45.4**	46.1	45.7

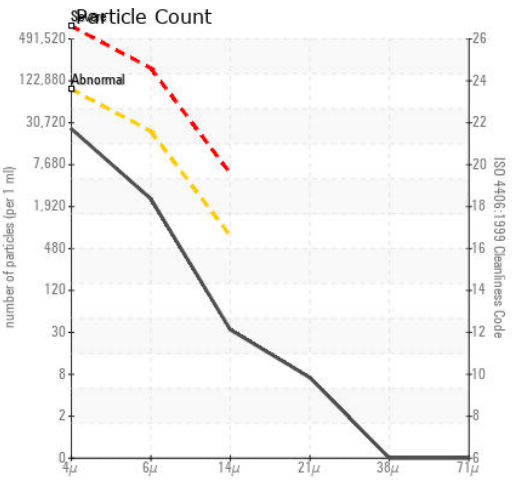
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

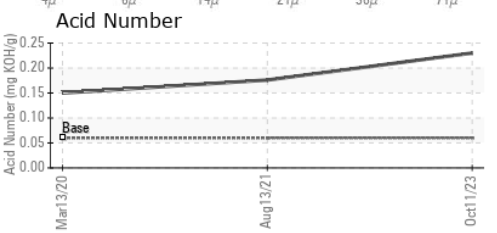
GRAPHS











Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: JR0180550	**Received**	: 13 Oct 2023
Lab Number	: 05978192	**Diagnosed**	: 17 Oct 2023
Unique Number	: 10695487	**Diagnostician**	: Don Baldridge
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)

JRE - ASHLAND
11047 LEADBETTER RD
ASHLAND, VA
US 23005
Contact: DAVID ZIEG
dzieg@jamesriverequipment.com
T: (804)798-6001
F: (804)798-0292