



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 701655

Component
Hydraulic System

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

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment:
Top Up Amount: 1.8 QTS)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0218019	JR0169114	JR0146487
Sample Date		Client Info		30 May 2024	28 Apr 2023	29 Nov 2022
Machine Age	hrs	Client Info		2349	1876	1518
Oil Age	hrs	Client Info		1991	1670	1724
Filter Age	hrs	Client Info		1991	0	1724
Oil Changed		Client Info		Oil Added	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	13	11	7
Iron	ppm	ASTM D5185m	>32	0	15	3
Chromium	ppm	ASTM D5185m	>9	0	2	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	0	0	0
Lead	ppm	ASTM D5185m	>28	0	<1	0
Copper	ppm	ASTM D5185m	>50	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

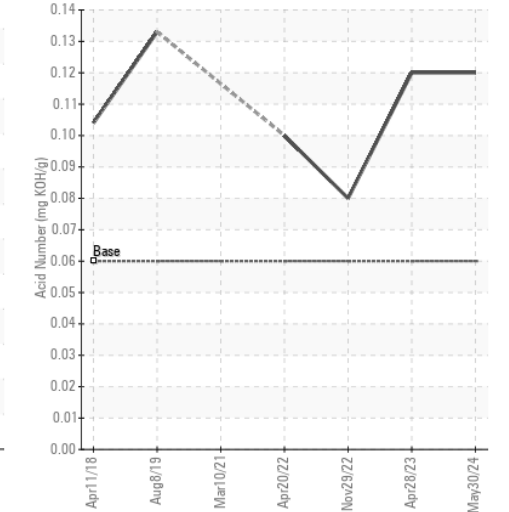
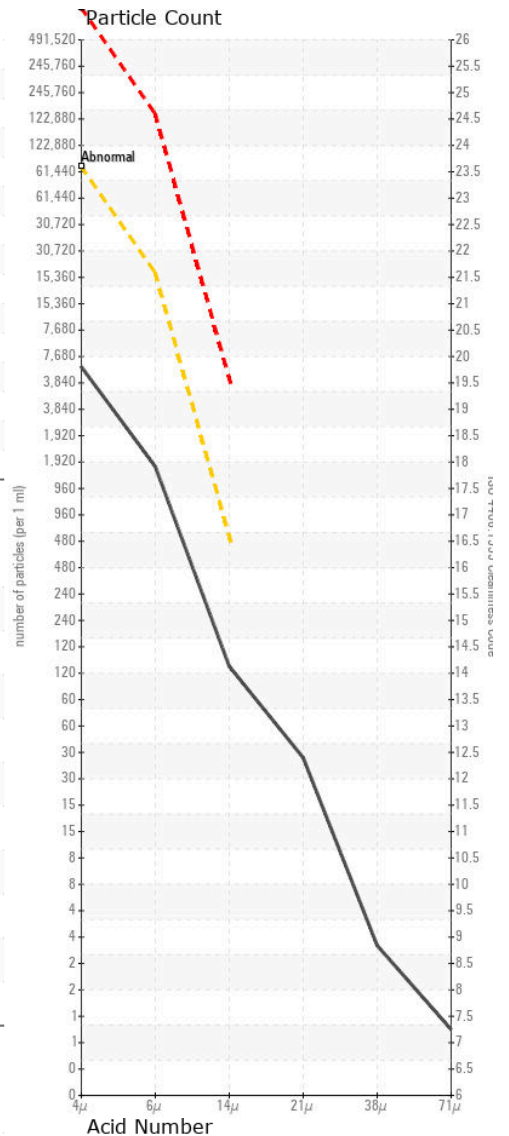
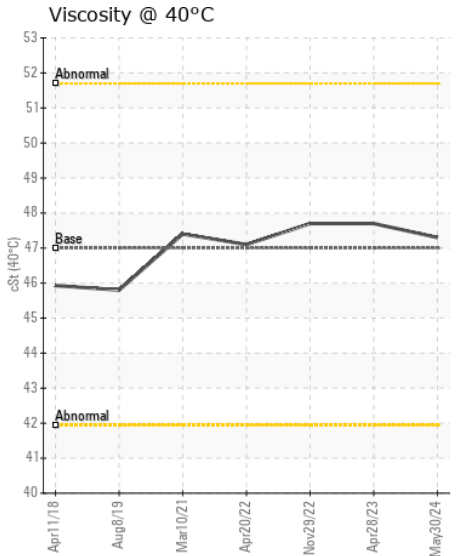
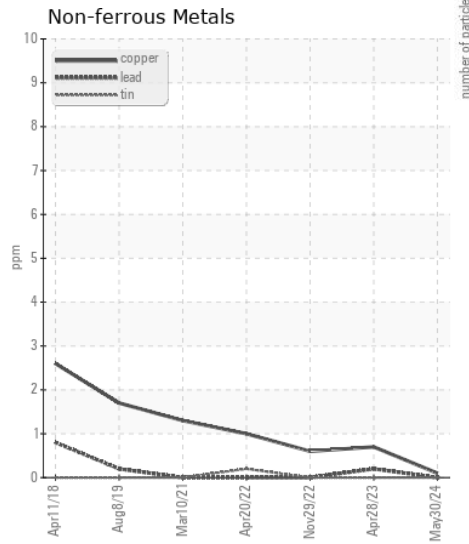
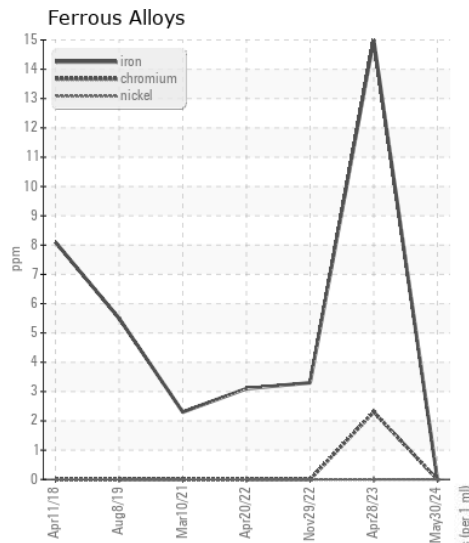
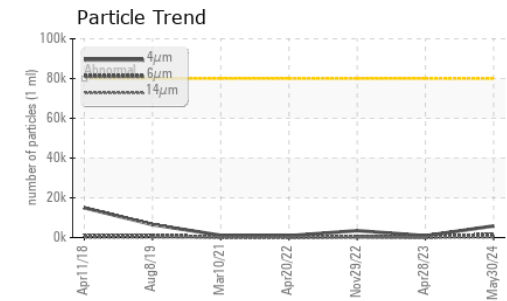
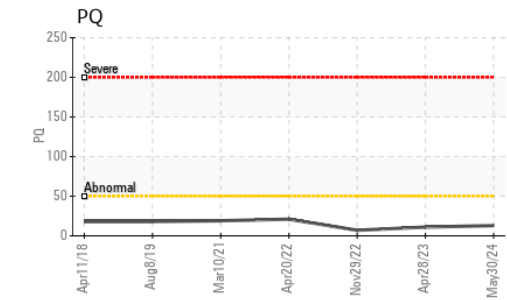
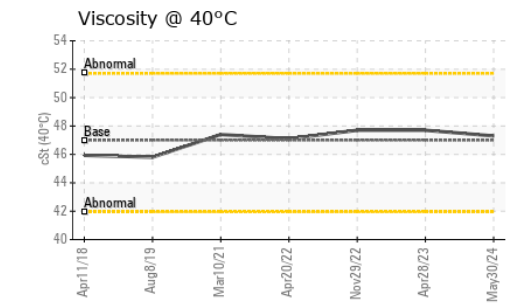
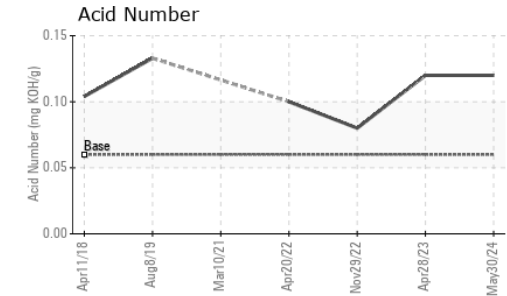
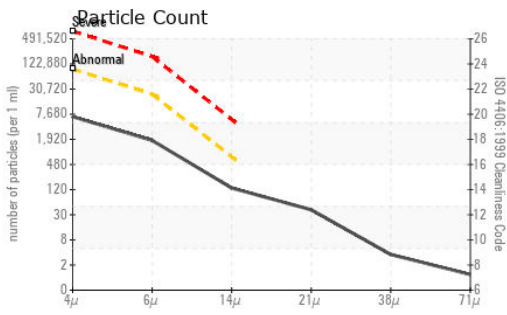
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	0	2	<1
Potassium	ppm	ASTM D5185m	>20	0	3	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	5844	922	3479
Particles >6µm		ASTM D7647	>20000	1583	163	566
Particles >14µm		ASTM D7647	>640	116	11	34
Particles >21µm		ASTM D7647	>160	35	4	9
Particles >38µm		ASTM D7647	>40	3	0	1
Particles >71µm		ASTM D7647	>10	1	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	20/18/14	17/15/11	19/16/12
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

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	1	10	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	2	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		<1	3	3
Calcium	ppm	ASTM D5185m		12	63	2
Phosphorus	ppm	ASTM D5185m	827	468	333	451
Zinc	ppm	ASTM D5185m	0	33	▲ 590	19
Sulfur	ppm	ASTM D5185m	13	361	902	140
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.12	0.12	0.08
Visc @ 40°C	cSt	ASTM D445	47	47.3	47.7	47.7



Certificate L2367

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

Sample No. : JR0218019

Lab Number : 06197534

Unique Number : 11059657

Test Package : CONST (Additional Tests: PQ)

Received : 03 Jun 2024

Tested : 04 Jun 2024

Diagnosed : 04 Jun 2024 - Don Baldrige

NPL CONSTRUCTION

7611 COPPERMINE DR

MANASSAS, VA

US 20109-2668

Contact: BRANDON

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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F: