



WEAR	SEVERE
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 47
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0204613	JR0174293	JR0145760
Sample Date		Client Info		12 Feb 2024	30 Jul 2023	27 Dec 2022
Machine Age	hrs	Client Info		9928	9386	8845
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

The iron level is severe.

PQ		ASTM D8184	>50	57	16	9
Iron	ppm	ASTM D5185m	>32	108	18	14
Chromium	ppm	ASTM D5185m	>9	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	3	4	5
Lead	ppm	ASTM D5185m	>28	0	0	<1
Copper	ppm	ASTM D5185m	>50	2	<1	<1
Tin	ppm	ASTM D5185m	>5	<1	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

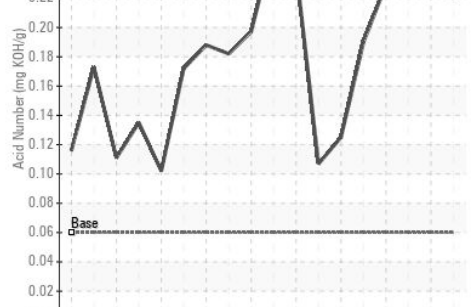
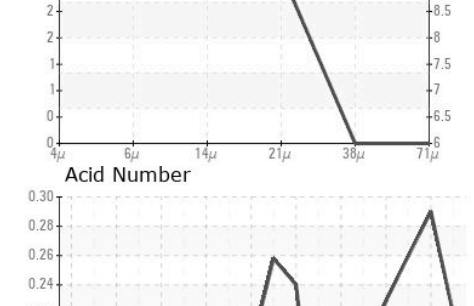
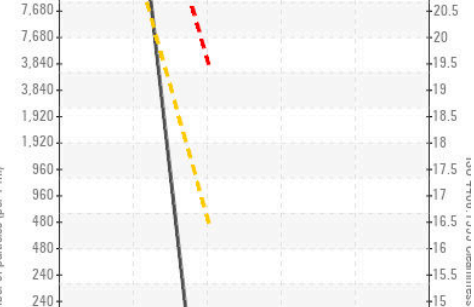
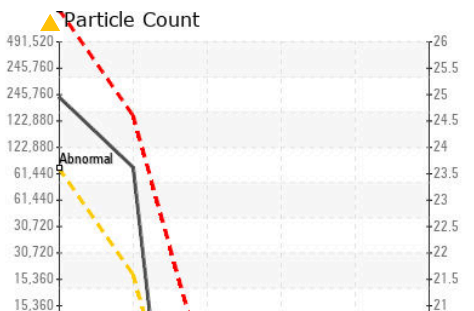
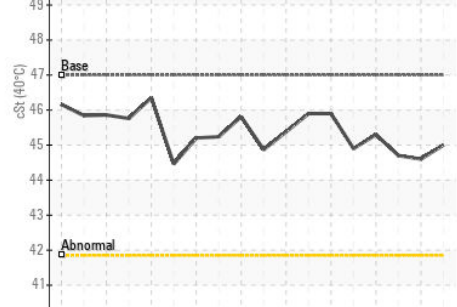
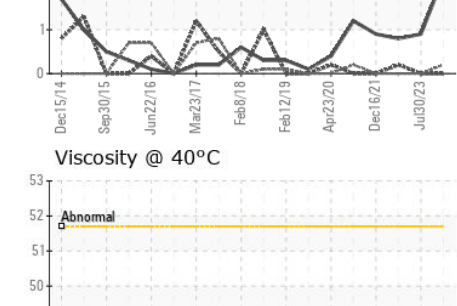
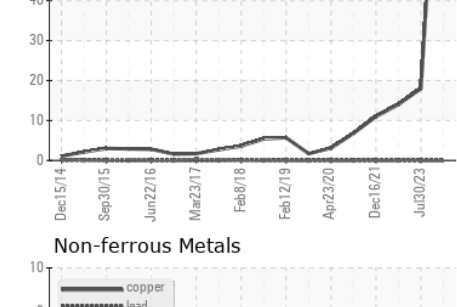
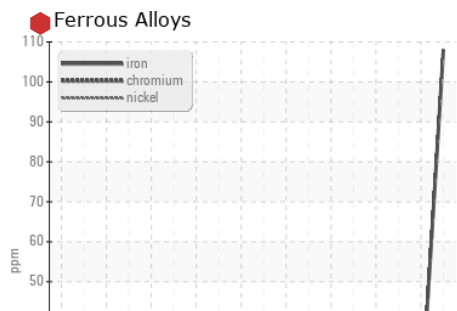
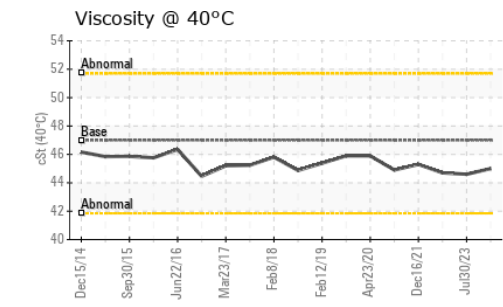
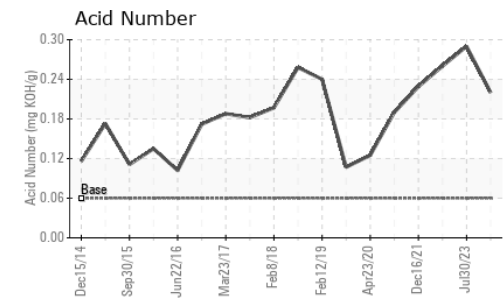
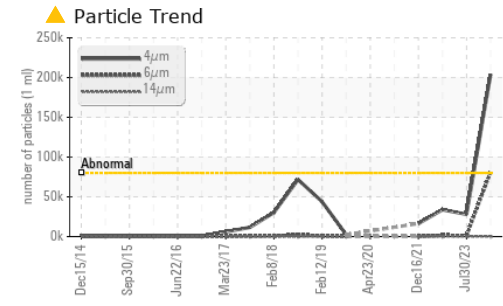
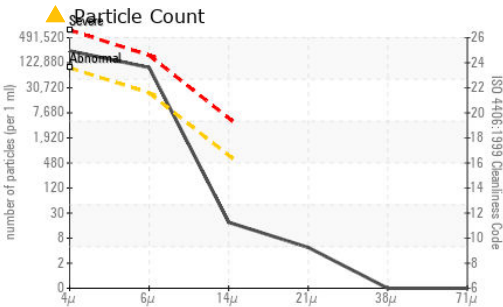
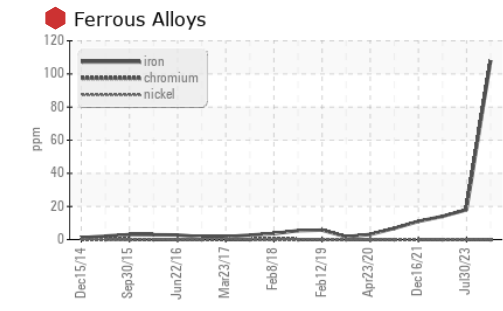
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>11	4	4	4
Potassium	ppm	ASTM D5185m	>20	<1	<1	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	204082	27939	33877
Particles >6µm		ASTM D7647	>20000	81382	1231	1580
Particles >14µm		ASTM D7647	>640	16	129	92
Particles >21µm		ASTM D7647	>160	4	35	22
Particles >38µm		ASTM D7647	>40	0	2	2
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	25/24/11	22/17/14	22/18/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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.

Sodium	ppm	ASTM D5185m	>21	<1	<1	<1
Boron	ppm	ASTM D5185m		<1	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		1	0	0
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m		8	0	0
Calcium	ppm	ASTM D5185m		70	0	2
Phosphorus	ppm	ASTM D5185m	827	509	536	507
Zinc	ppm	ASTM D5185m	0	76	13	18
Sulfur	ppm	ASTM D5185m	13	430	103	164
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.22	0.29	0.26
Visc @ 40°C	cSt	ASTM D445	47	45.0	44.6	44.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0204613 **Received** : 13 Feb 2024
Lab Number : 06088108 **Tested** : 14 Feb 2024
Unique Number : 10875553 **Diagnosed** : 15 Feb 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

HENNINGS CONSTRUCTION
 10011 NC HWY 67
 EAST BEND, NC
 US 27018
 Contact: SERVICE MANAGER

Certificate L2367
 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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