



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 345G 1FF345GXCMF020838

Component
Hydraulic System

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

RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199106	JR0192389	JR0183809
Sample Date		Client Info		26 Feb 2024	29 Nov 2023	23 Aug 2023
Machine Age	hrs	Client Info		2935	2406	1964
Oil Age	hrs	Client Info		2935	2406	1964
Filter Age	hrs	Client Info		0	0	1964
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	19	15	13
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	1	0
Lead	ppm	ASTM D5185m	>10	1	0	<1
Copper	ppm	ASTM D5185m	>75	2	2	3
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

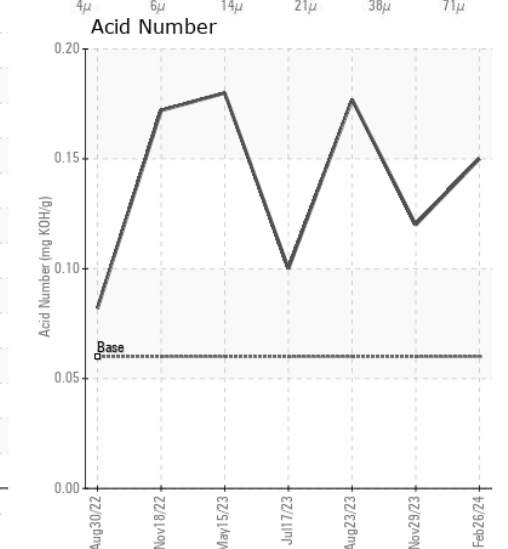
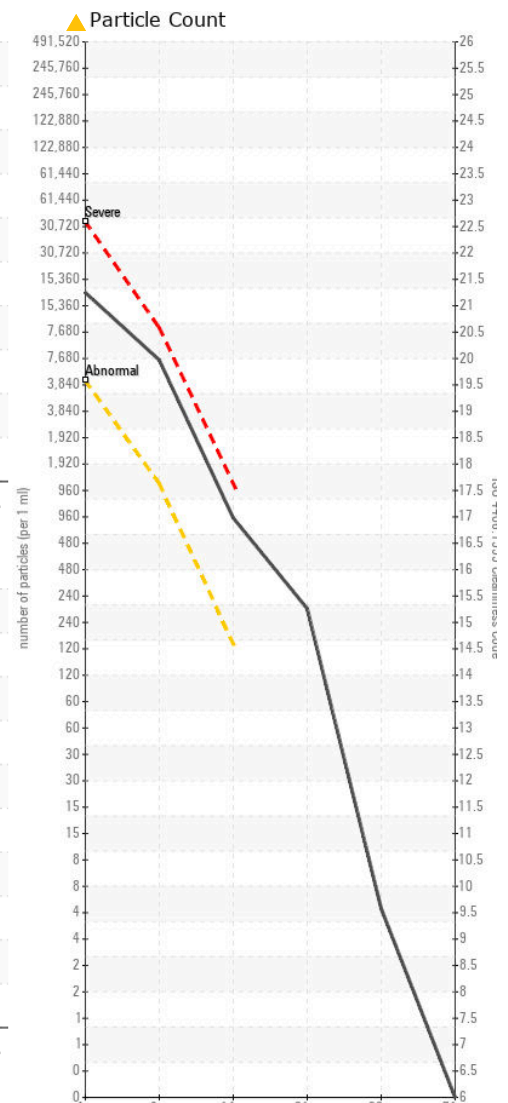
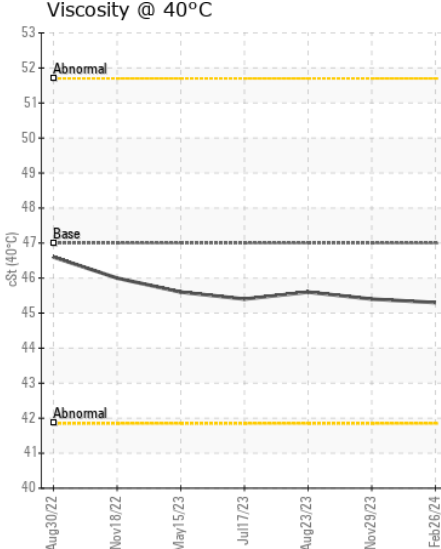
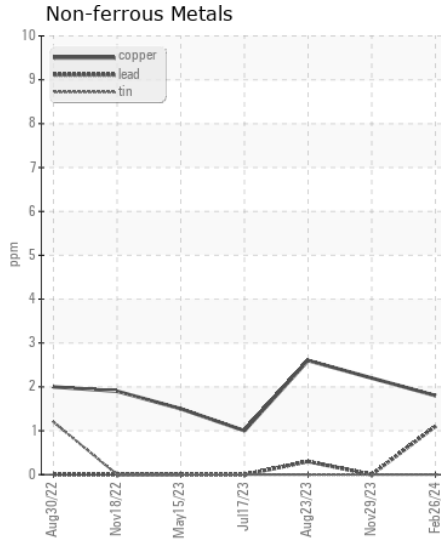
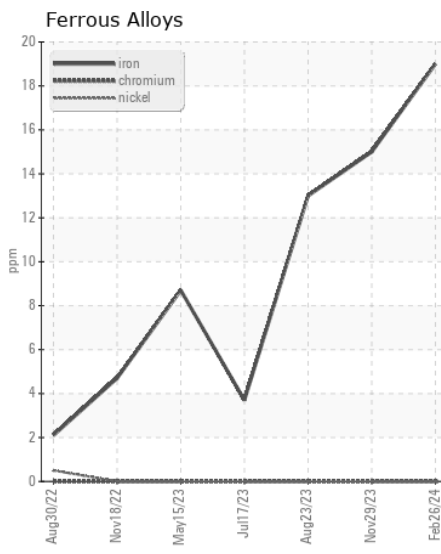
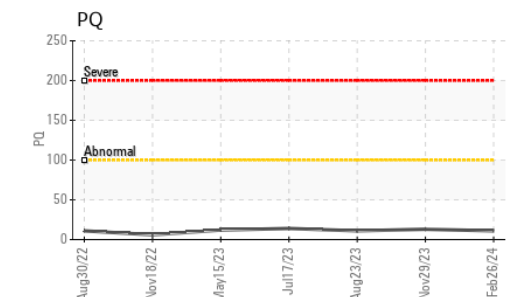
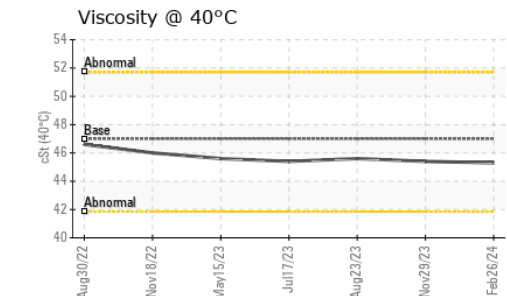
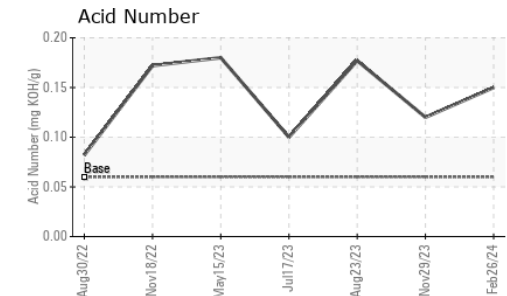
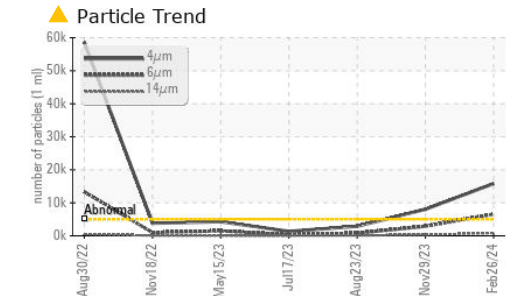
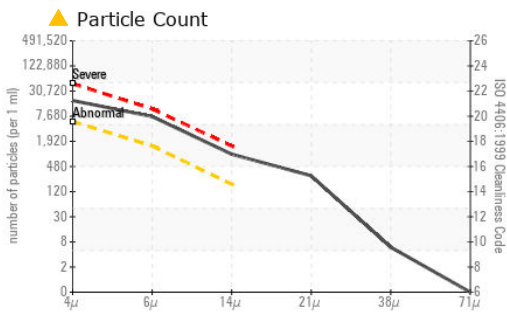
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	2	3	3
Potassium	ppm	ASTM D5185m	>20	<1	2	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 15831	● 8048	2899
Particles >6µm		ASTM D7647	>1300	▲ 6554	▲ 2913	812
Particles >14µm		ASTM D7647	>160	▲ 829	● 287	90
Particles >21µm		ASTM D7647	>40	▲ 253	● 61	26
Particles >38µm		ASTM D7647	>10	5	4	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/20/17	▲ 20/19/15	19/17/14
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	>0.1	NEG	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		3	0	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	0	3
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		<1	1	4
Calcium	ppm	ASTM D5185m		3	2	9
Phosphorus	ppm	ASTM D5185m	827	531	484	557
Zinc	ppm	ASTM D5185m	0	52	32	54
Sulfur	ppm	ASTM D5185m	13	144	93	0
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.15	0.12	0.177
Visc @ 40°C	cSt	ASTM D445	47	45.3	45.4	45.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0199106 **Received** : 27 Feb 2024
Lab Number : 06102400 **Tested** : 28 Feb 2024
Unique Number : 10900630 **Diagnosed** : 29 Feb 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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 US 20111
 Contact: DON VEST
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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)