



Area

[W62697]

Machine Id

JOHN DEERE 350G 1FF350GXTMF815037

Component

Hydraulic System

Fluid

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

RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil. (Customer Sample Comment: W62697)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0188962	JR0171829	JR0155423
Sample Date		Client Info		08 Jan 2024	08 Jun 2023	13 Mar 2023
Machine Age	hrs	Client Info		4428	2984	2984
Oil Age	hrs	Client Info		3928	3484	500
Filter Age	hrs	Client Info		0	500	500
Oil Changed		Client Info		Not Changed	Not Changed	Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	20	16	9
Iron	ppm	ASTM D5185m	>32	4	2	0
Chromium	ppm	ASTM D5185m	>9	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	<1	0	<1
Lead	ppm	ASTM D5185m	>28	0	0	0
Copper	ppm	ASTM D5185m	>50	2	0	0
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

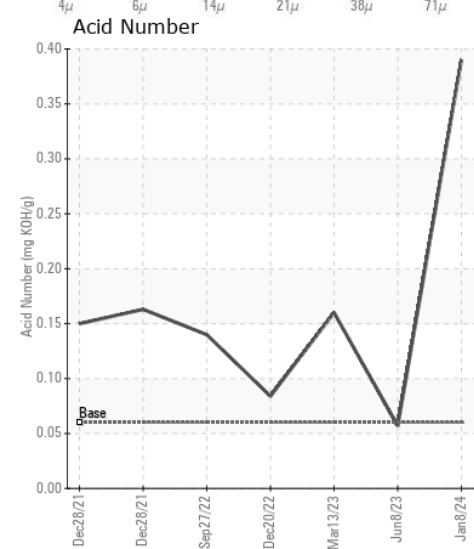
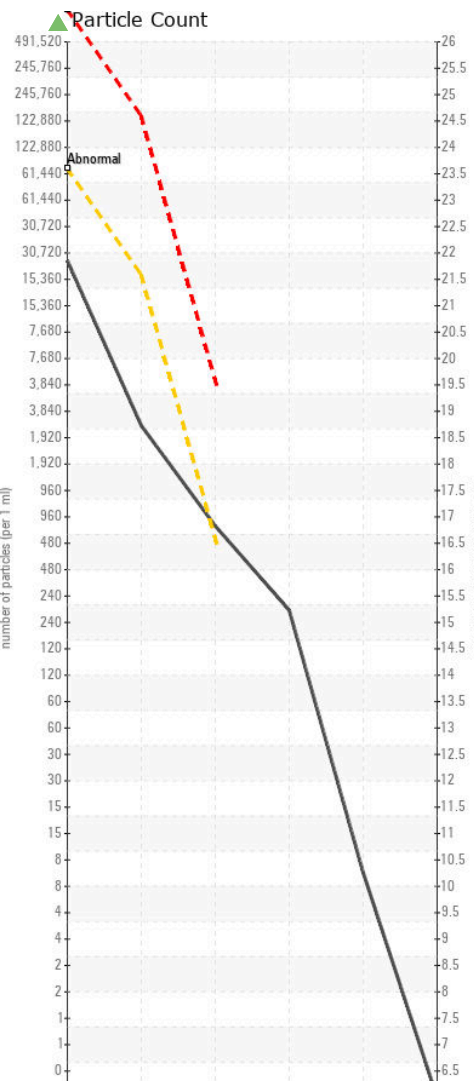
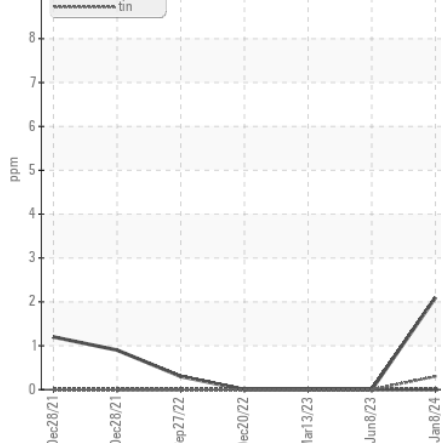
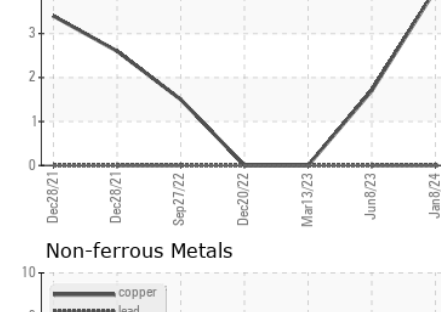
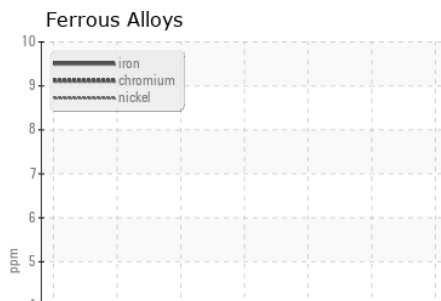
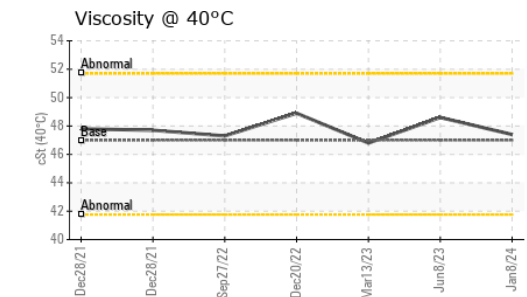
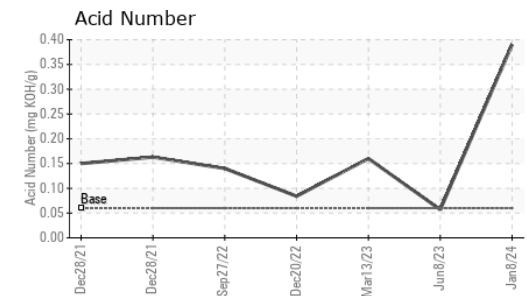
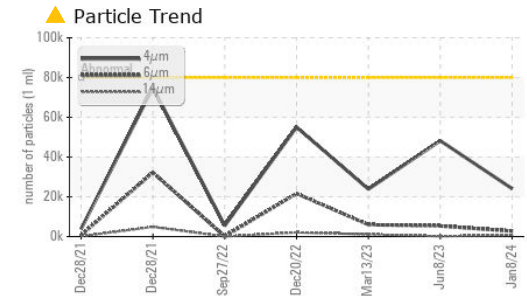
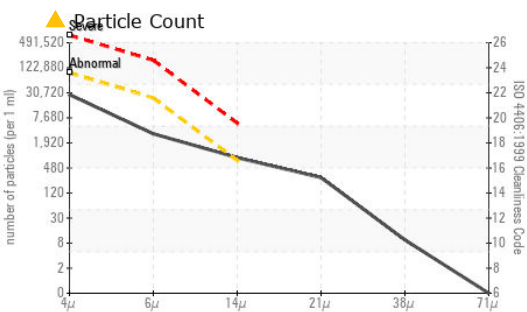
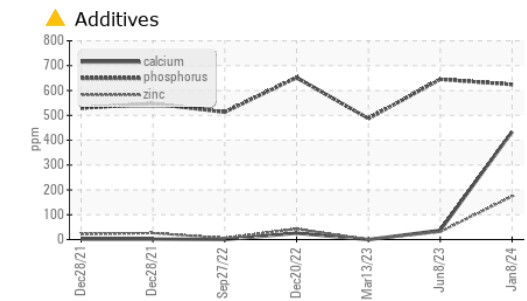
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>11	2	2	<1
Potassium	ppm	ASTM D5185m	>20	<1	1	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	24119	48215	23858
Particles >6µm		ASTM D7647	>20000	2779	5336	5959
Particles >14µm		ASTM D7647	>640	▲ 747	125	▲ 1092
Particles >21µm		ASTM D7647	>160	▲ 248	23	▲ 335
Particles >38µm		ASTM D7647	>40	8	0	25
Particles >71µm		ASTM D7647	>10	0	0	1
Oil Cleanliness		ISO 4406 (c)	>23/21/16	▲ 22/19/17	23/20/14	▲ 22/20/17
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

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

Sodium	ppm	ASTM D5185m	>21	<1	0	0
Boron	ppm	ASTM D5185m		0	5	0
Barium	ppm	ASTM D5185m		0	2	0
Molybdenum	ppm	ASTM D5185m		0	6	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		3	18	<1
Calcium	ppm	ASTM D5185m		434	37	0
Phosphorus	ppm	ASTM D5185m	827	624	645	487
Zinc	ppm	ASTM D5185m	0	▲ 174	31	0
Sulfur	ppm	ASTM D5185m	13	587	88	0
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.39	0.057	0.16
Visc @ 40°C	cSt	ASTM D445	47	47.4	48.6	46.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0188962 **Received** : 10 Jan 2024
Lab Number : 06056583 **Diagnosed** : 11 Jan 2024
Unique Number : 10822532 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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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)