



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Area
Store 4 - Fairmont
Machine Id
JOHN DEERE 50G 1FF050GXEEH282208
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- QTS)

RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil. Please note that this is a corrected copy for data entry updates.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0046033	LEC0027708	---
Sample Date		Client Info		18 Dec 2023	11 May 2022	---
Machine Age	hrs	Client Info		1938	1536	---
Oil Age	hrs	Client Info		1938	1536	---
Filter Age	hrs	Client Info		402	1536	---
Oil Changed		Client Info		Not Changed	Not Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	16	18	---
Iron	ppm	ASTM D5185m	>32	9	10	---
Chromium	ppm	ASTM D5185m	>9	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	0	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m		0	<1	---
Aluminum	ppm	ASTM D5185m	>9	<1	1	---
Lead	ppm	ASTM D5185m	>28	0	<1	---
Copper	ppm	ASTM D5185m	>50	11	10	---
Tin	ppm	ASTM D5185m	>5	0	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

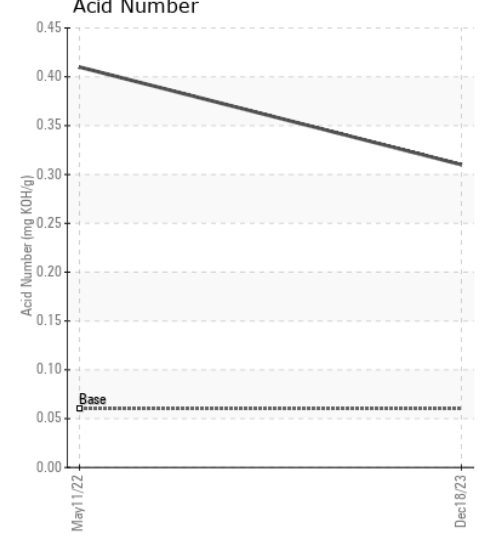
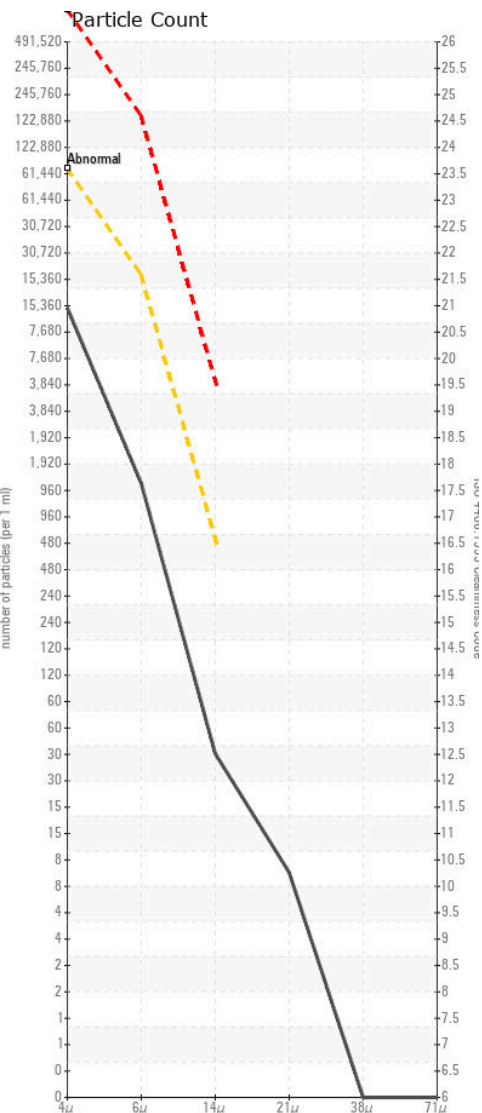
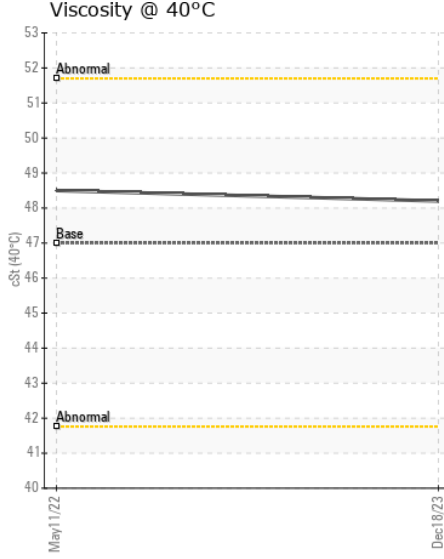
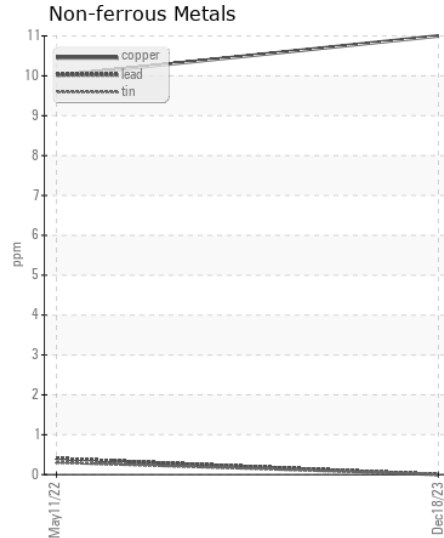
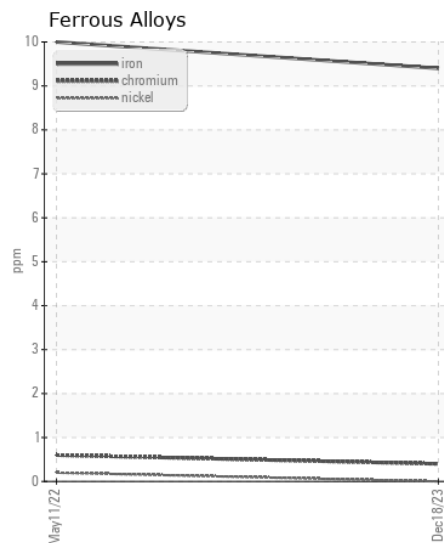
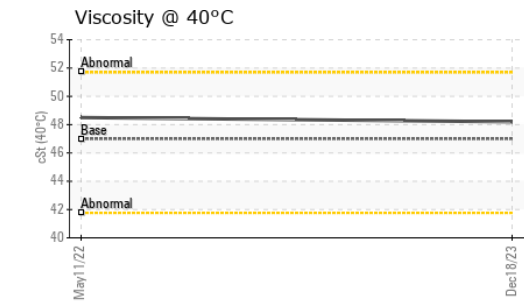
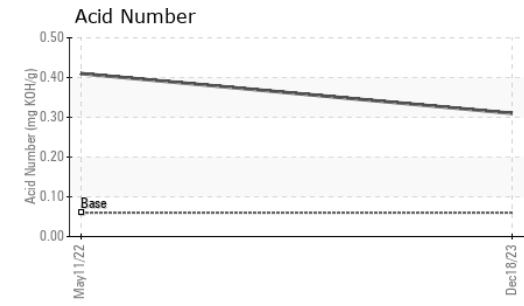
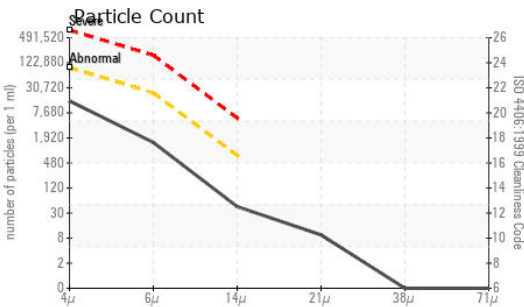
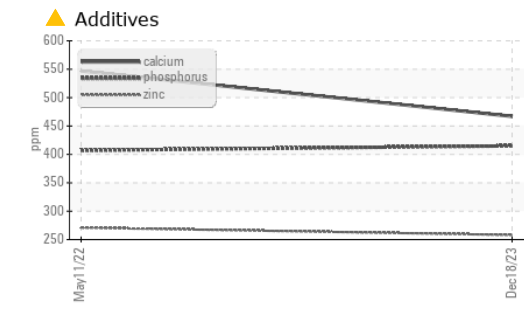
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	3	3	---
Potassium	ppm	ASTM D5185m	>20	0	0	---
Water		WC Method	>0.075	NEG	NEG	---
Particles >4µm		ASTM D7647	>80000	12989	71102	---
Particles >6µm		ASTM D7647	>20000	1305	19024	---
Particles >14µm		ASTM D7647	>640	38	▲ 1213	---
Particles >21µm		ASTM D7647	>160	8	115	---
Particles >38µm		ASTM D7647	>40	0	1	---
Particles >71µm		ASTM D7647	>10	0	0	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	21/18/12	▲ 23/21/17	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>21	2	2	---
Boron	ppm	ASTM D5185m		10	16	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		4	5	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		13	16	---
Calcium	ppm	ASTM D5185m		467	547	---
Phosphorus	ppm	ASTM D5185m	827	415	407	---
Zinc	ppm	ASTM D5185m	0	▲ 258	▲ 271	---
Sulfur	ppm	ASTM D5185m	13	1515	1474	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.31	0.41	---
Visc @ 40°C	cSt	ASTM D445	47	48.2	48.5	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0046033 **Received** : 21 Dec 2023
Lab Number : 06042649 **Diagnosed** : 09 Jan 2024
Unique Number : 10803257 **Diagnostician** : Doug Bogart
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)