



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
Store 3 - Norton

Machine Id
JOHN DEERE 85G 1FF085GXALJ021731

Component
Hydraulic System

Fluid
HITACHI HYDRAULIC SUPER EX 46HN (27 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0048207	---	---
Sample Date		Client Info		18 Apr 2024	---	---
Machine Age	hrs	Client Info		541	---	---
Oil Age	hrs	Client Info		541	---	---
Filter Age	hrs	Client Info		541	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	17	---	---
Iron	ppm	ASTM D5185m	>32	14	---	---
Chromium	ppm	ASTM D5185m	>9	0	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>9	<1	---	---
Lead	ppm	ASTM D5185m	>28	0	---	---
Copper	ppm	ASTM D5185m	>50	8	---	---
Tin	ppm	ASTM D5185m	>5	0	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

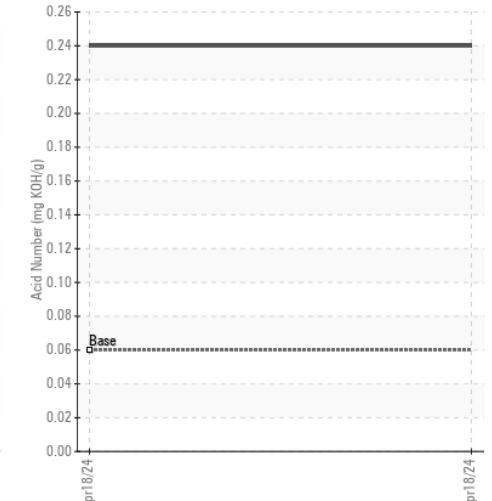
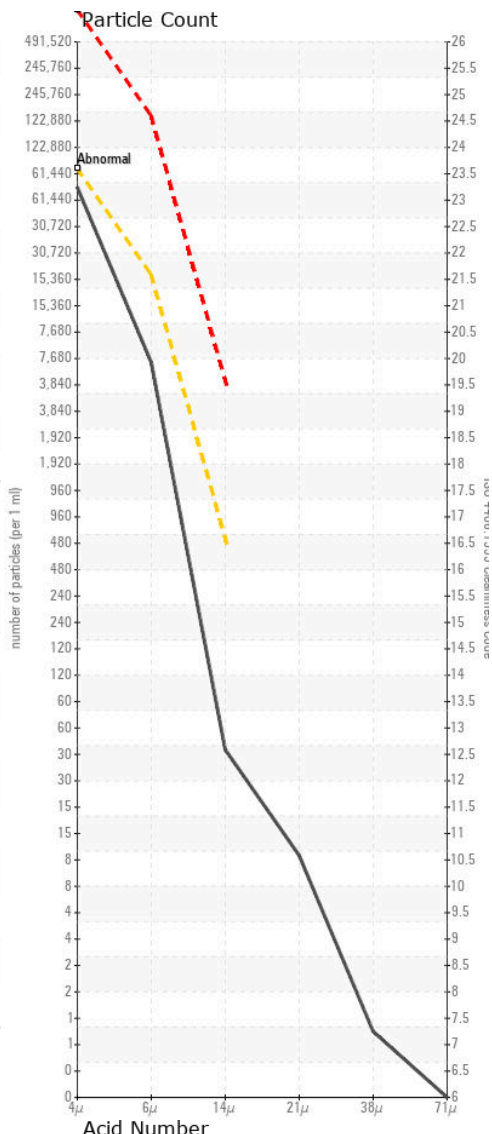
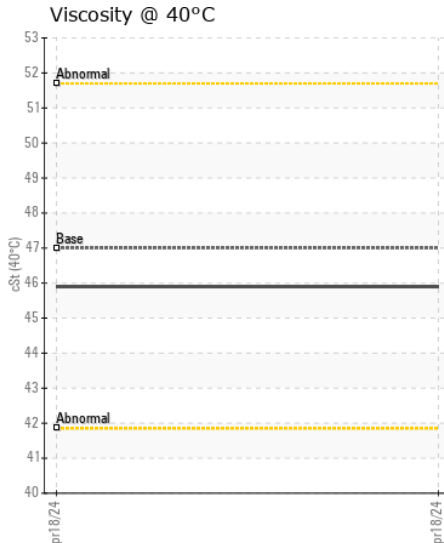
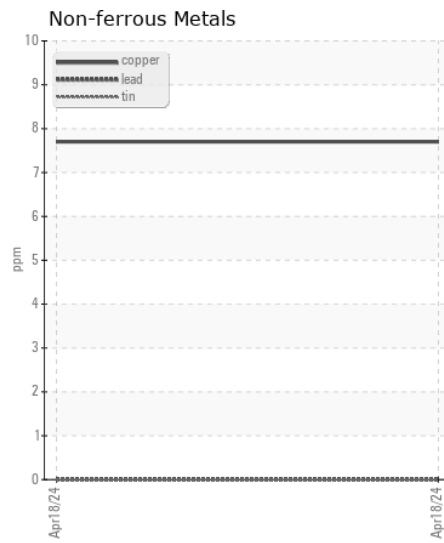
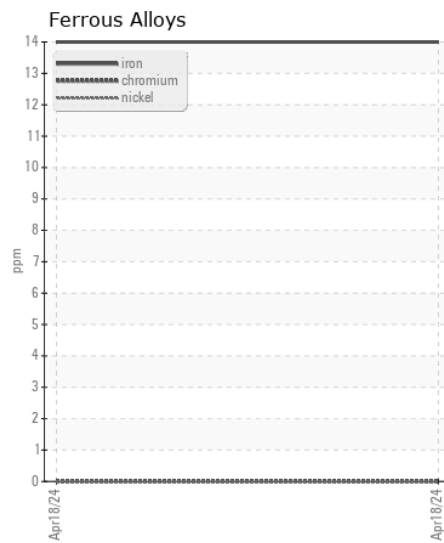
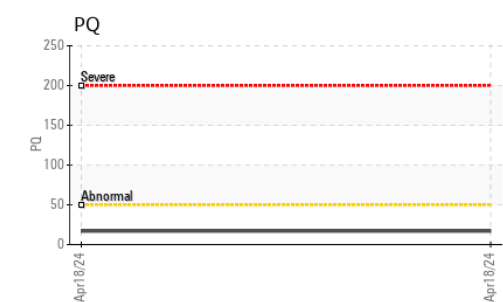
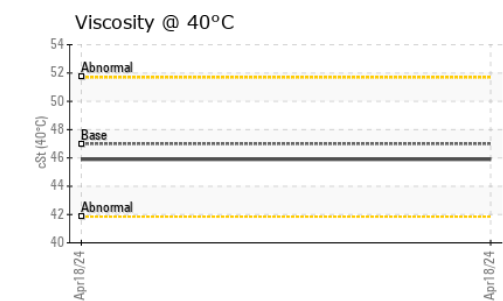
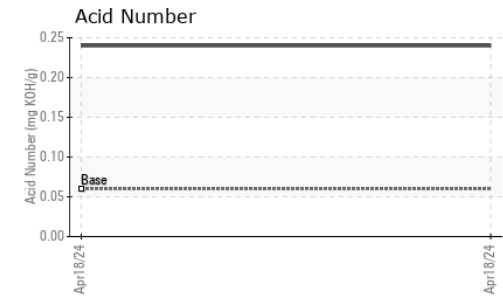
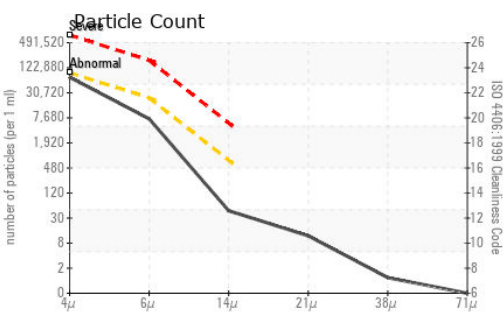
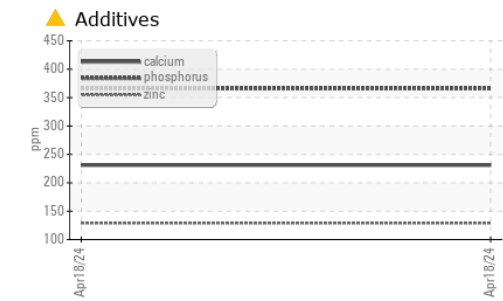
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	3	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Water		WC Method	>0.075	NEG	---	---
Particles >4µm		ASTM D7647	>80000	62799	---	---
Particles >6µm		ASTM D7647	>20000	6344	---	---
Particles >14µm		ASTM D7647	>640	40	---	---
Particles >21µm		ASTM D7647	>160	10	---	---
Particles >38µm		ASTM D7647	>40	1	---	---
Particles >71µm		ASTM D7647	>10	0	---	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	23/20/12	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.075	NEG	---	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>21	1	---	---
Boron	ppm	ASTM D5185m		0	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		0	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		11	---	---
Calcium	ppm	ASTM D5185m		231	---	---
Phosphorus	ppm	ASTM D5185m	827	366	---	---
Zinc	ppm	ASTM D5185m	0	▲ 129	---	---
Sulfur	ppm	ASTM D5185m	13	1512	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.24	---	---
Visc @ 40°C	cSt	ASTM D445	47	45.9	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0048207 **Received** : 22 Apr 2024
Lab Number : 06155785 **Tested** : 23 Apr 2024
Unique Number : 10991208 **Diagnosed** : 24 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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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)