



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 4 - Fairmont
Machine Id
JOHN DEERE 210G 1FF210GXANF530291
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (63 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0050065	LEC0046060	LEC0041409
Sample Date		Client Info		19 Jun 2024	28 Dec 2023	30 May 2023
Machine Age	hrs	Client Info		899	820	479
Oil Age	hrs	Client Info		899	820	479
Filter Age	hrs	Client Info		899	0	479
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Not Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	17	12	9
Iron	ppm	ASTM D5185m	>32	4	2	<1
Chromium	ppm	ASTM D5185m	>9	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>9	3	2	<1
Lead	ppm	ASTM D5185m	>28	<1	<1	<1
Copper	ppm	ASTM D5185m	>50	2	1	2
Tin	ppm	ASTM D5185m	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

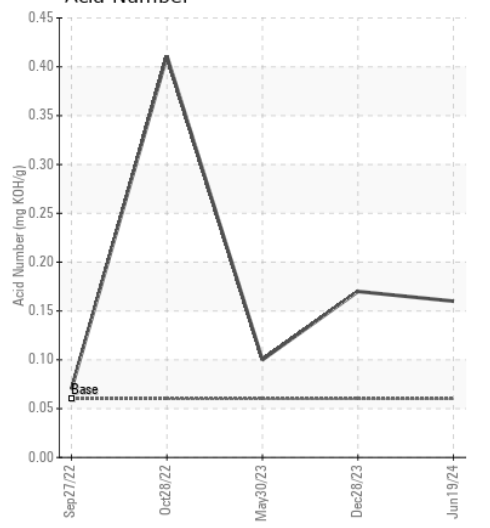
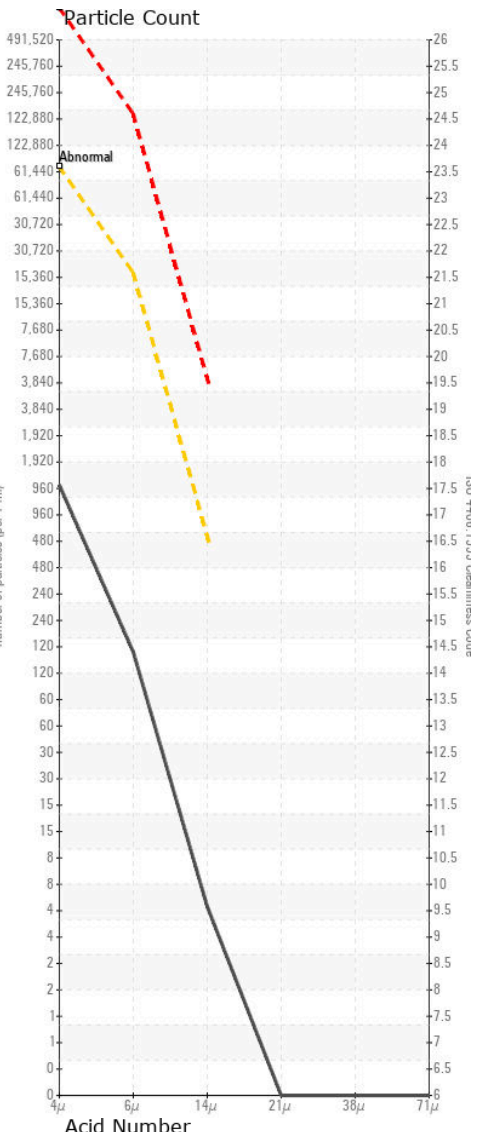
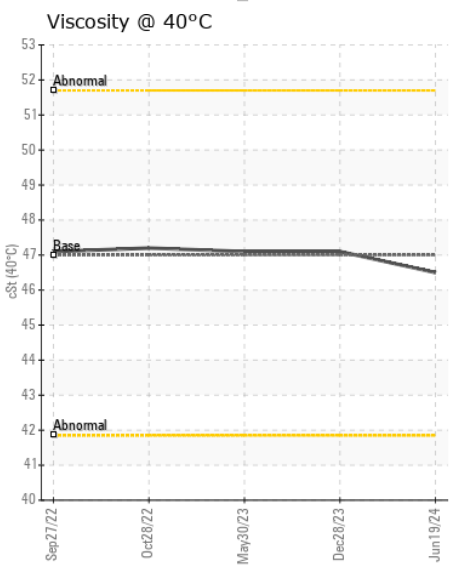
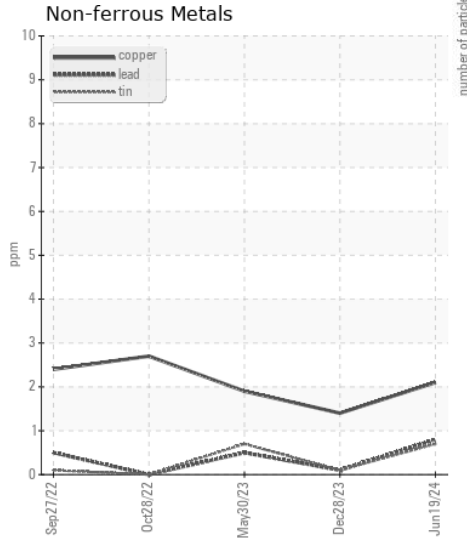
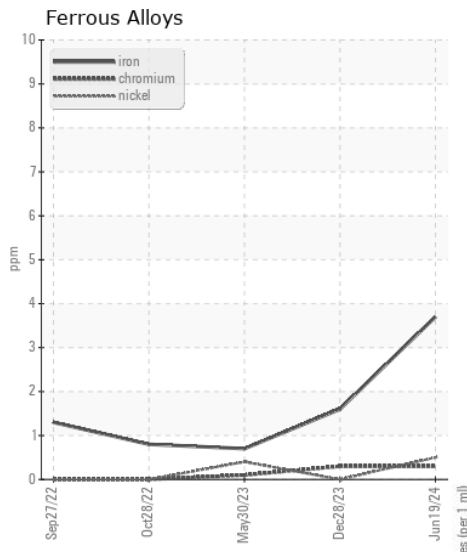
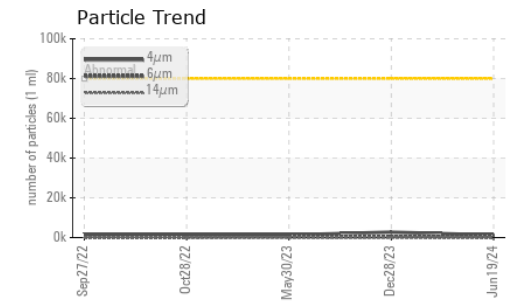
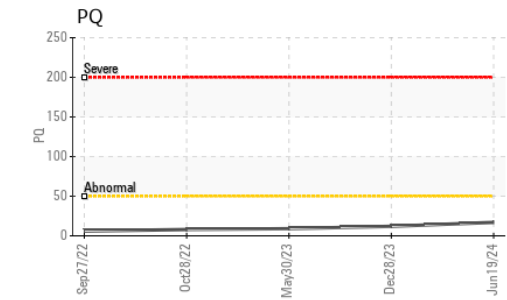
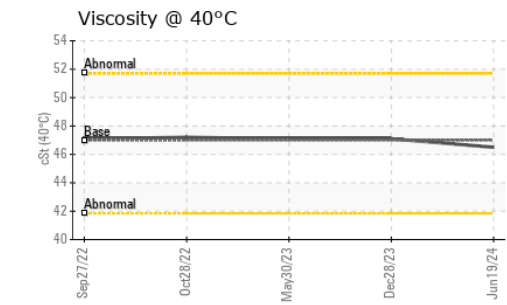
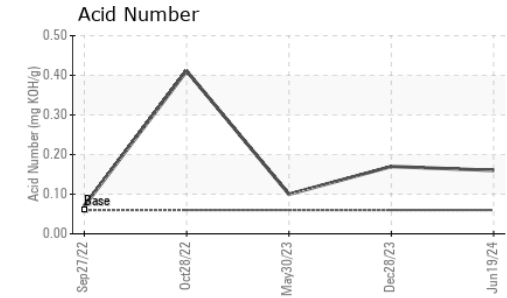
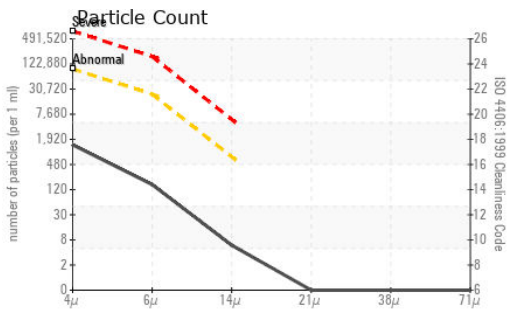
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	2	0	0
Potassium	ppm	ASTM D5185m	>20	2	<1	2
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	1245	2743	1308
Particles >6µm		ASTM D7647	>20000	140	297	274
Particles >14µm		ASTM D7647	>640	5	15	21
Particles >21µm		ASTM D7647	>160	0	3	3
Particles >38µm		ASTM D7647	>40	0	0	1
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	17/14/10	19/15/11	18/15/12
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

The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	0	0	<1
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		1	<1	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		<1	<1	0
Calcium	ppm	ASTM D5185m		0	1	3
Phosphorus	ppm	ASTM D5185m	827	550	523	585
Zinc	ppm	ASTM D5185m	0	36	22	30
Sulfur	ppm	ASTM D5185m	13	97	73	0
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.16	0.17	0.10
Visc @ 40°C	cSt	ASTM D445	47	46.5	47.1	47.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0050065 **Received** : 21 Jun 2024
Lab Number : 06216782 **Tested** : 24 Jun 2024
Unique Number : 11089646 **Diagnosed** : 24 Jun 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)