



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 1 - Cowen [149967]
Machine Id
JOHN DEERE 210P 1FF210PALPF000855
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		LEC0048088	LEC0046522	---
Sample Date		Client Info		18 Apr 2024	01 Dec 2023	---
Machine Age	hrs	Client Info		235	110	---
Oil Age	hrs	Client Info		235	110	---
Filter Age	hrs	Client Info		235	110	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	13	11	---
Iron	ppm	ASTM D5185m	>32	<1	0	---
Chromium	ppm	ASTM D5185m	>9	0	0	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>9	0	0	---
Lead	ppm	ASTM D5185m	>28	0	0	---
Copper	ppm	ASTM D5185m	>50	2	<1	---
Tin	ppm	ASTM D5185m	>5	0	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

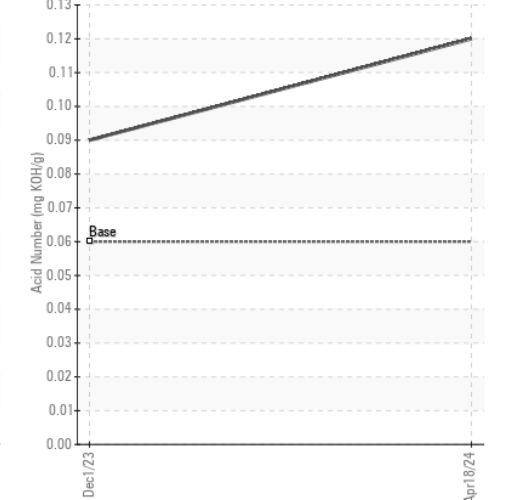
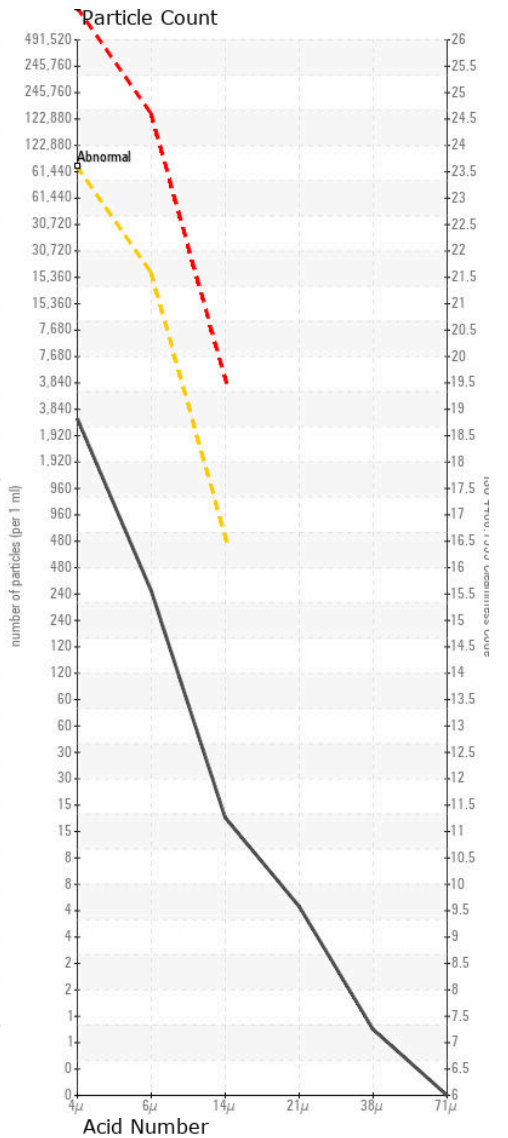
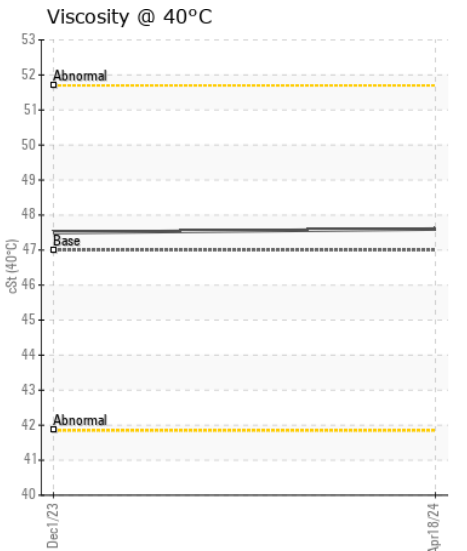
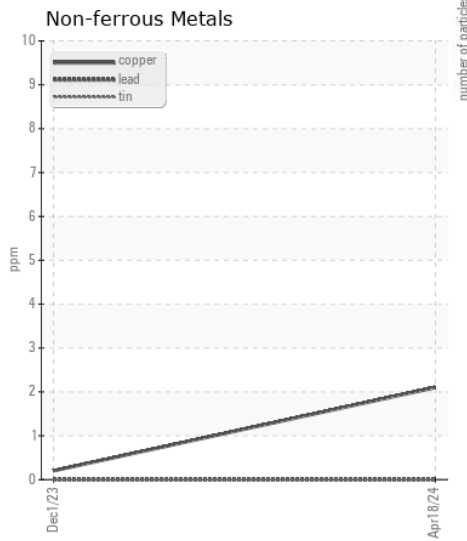
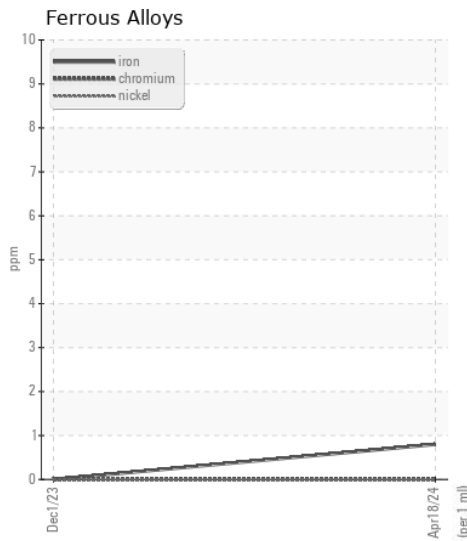
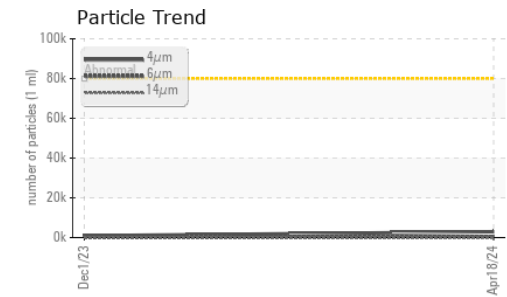
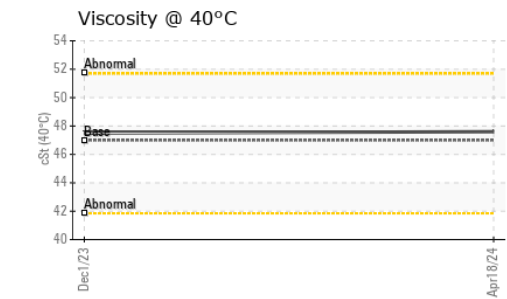
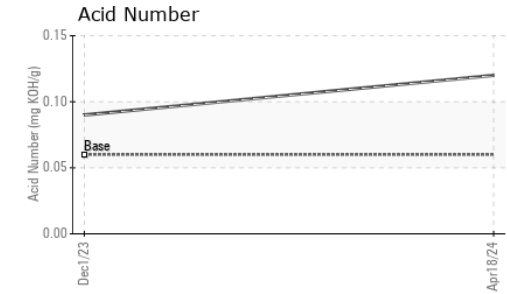
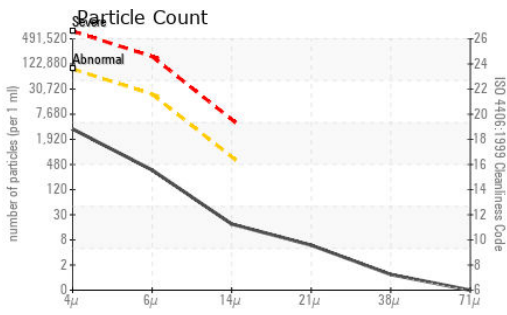
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	<1	1	---
Potassium	ppm	ASTM D5185m	>20	0	0	---
Water		WC Method	>0.075	NEG	NEG	---
Particles >4µm		ASTM D7647	>80000	2964	942	---
Particles >6µm		ASTM D7647	>20000	311	72	---
Particles >14µm		ASTM D7647	>640	16	7	---
Particles >21µm		ASTM D7647	>160	5	2	---
Particles >38µm		ASTM D7647	>40	1	0	---
Particles >71µm		ASTM D7647	>10	0	0	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	19/15/11	17/13/10	---
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

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	0	0	---
Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		0	0	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		<1	0	---
Calcium	ppm	ASTM D5185m		2	2	---
Phosphorus	ppm	ASTM D5185m	827	521	542	---
Zinc	ppm	ASTM D5185m	0	23	16	---
Sulfur	ppm	ASTM D5185m	13	167	100	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.12	0.09	---
Visc @ 40°C	cSt	ASTM D445	47	47.6	47.5	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0048088 **Received** : 22 Apr 2024
Lab Number : 06155800 **Tested** : 23 Apr 2024
Unique Number : 10991223 **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)