



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**Store 1 - Cowen [146367]**  
Machine Id  
**JOHN DEERE 210P 1FF210PAHPF000369**  
Component  
**Hydraulic System**  
Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (63 GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0047343</b>	LEC0045901	LEC0045975
Sample Date		Client Info		<b>12 Feb 2024</b>	25 Jan 2024	10 Jan 2024
Machine Age	hrs	Client Info		<b>408</b>	407	406
Oil Age	hrs	Client Info		<b>408</b>	407	406
Filter Age	hrs	Client Info		<b>408</b>	407	406
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>15</b>	15	12
Iron	ppm	ASTM D5185m	>32	<b>0</b>	2	<1
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>0</b>	2	0
Lead	ppm	ASTM D5185m	>28	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	5	4
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

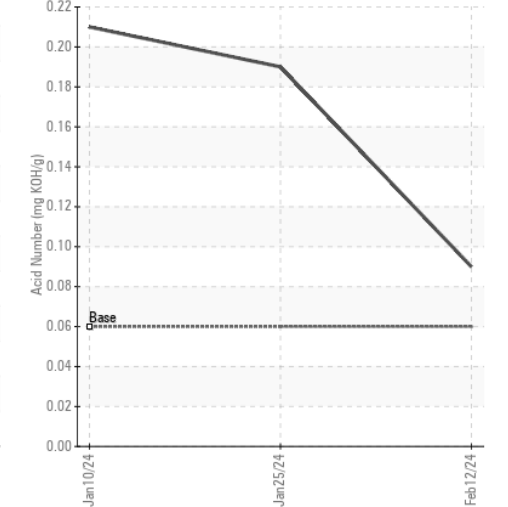
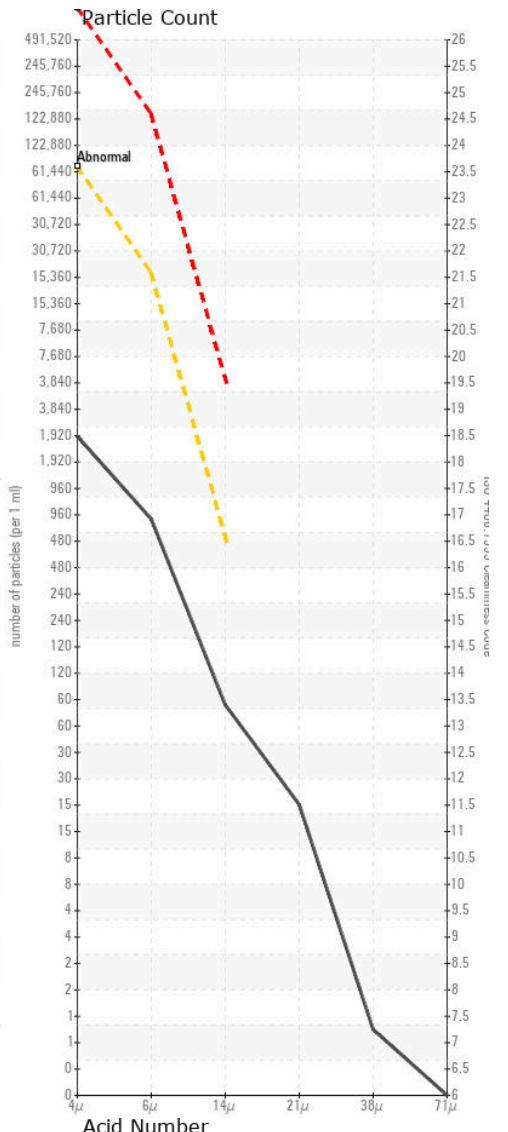
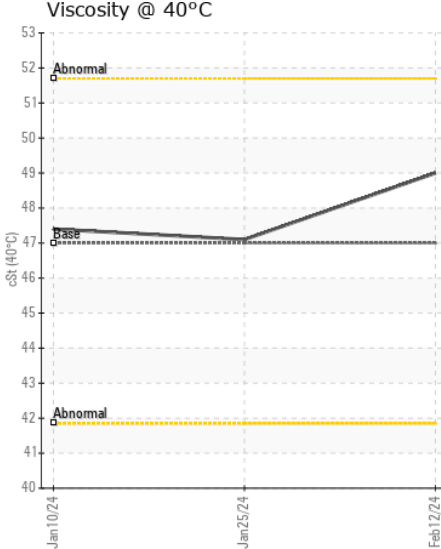
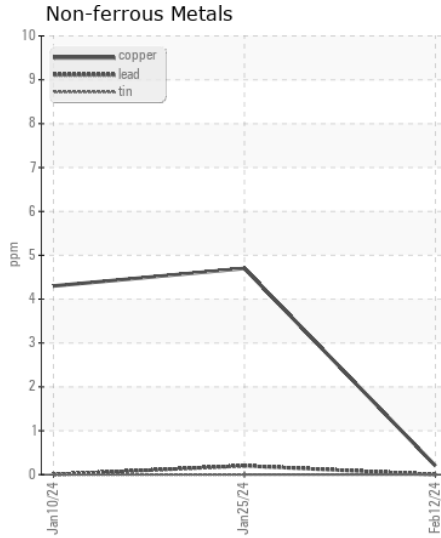
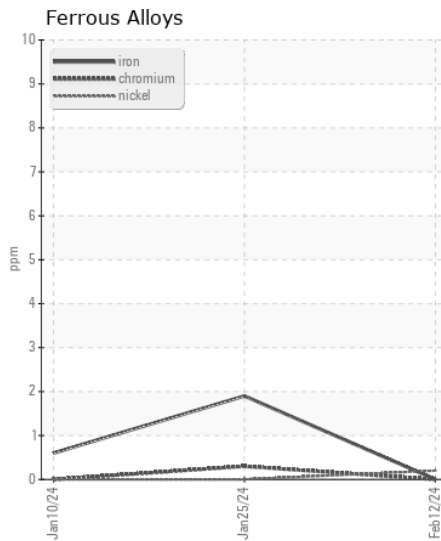
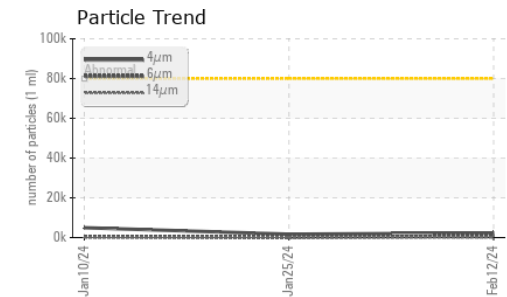
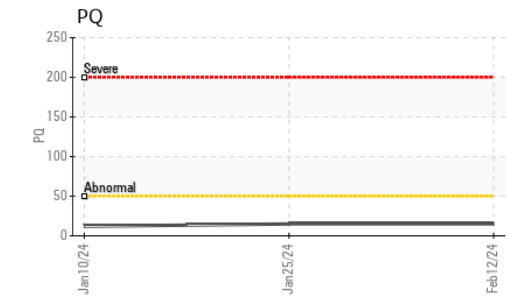
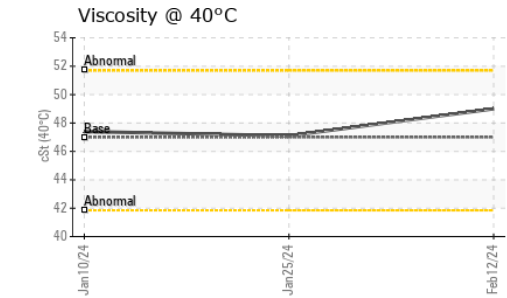
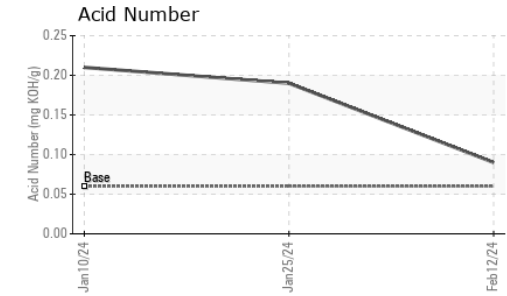
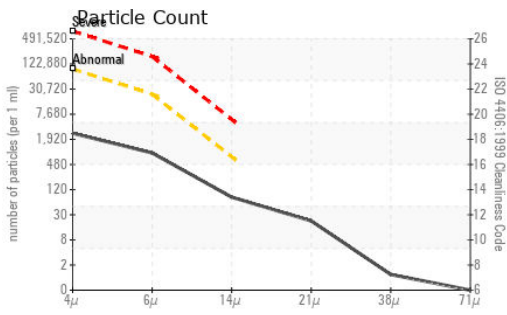
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>2</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	0
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>2353</b>	1706	4972
Particles >6µm		ASTM D7647	>20000	<b>796</b>	88	527
Particles >14µm		ASTM D7647	>640	<b>70</b>	9	22
Particles >21µm		ASTM D7647	>160	<b>19</b>	4	4
Particles >38µm		ASTM D7647	>40	<b>1</b>	0	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>18/17/13</b>	18/14/10	19/16/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	<b>NEG</b>	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	<b>&lt;1</b>	<1	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	8	0
Calcium	ppm	ASTM D5185m		<b>4</b>	24	16
Phosphorus	ppm	ASTM D5185m	827	<b>634</b>	443	499
Zinc	ppm	ASTM D5185m	0	<b>29</b>	▲ 125	▲ 130
Sulfur	ppm	ASTM D5185m	13	<b>115</b>	288	408
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.09</b>	0.19	0.21
Visc @ 40°C	cSt	ASTM D445	47	<b>49.00</b>	47.1	47.4



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0047343 **Received** : 14 Feb 2024  
**Lab Number** : 06089228 **Tested** : 14 Feb 2024  
**Unique Number** : 10876673 **Diagnosed** : 14 Feb 2024 - Doug Bogart  
**Test Package** : CONST ( Additional Tests: PQ )

**LESLIE EQUIPMENT COMPANY**  
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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)