



# OIL ANALYSIS REPORT

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



Area  
**Store 9 - Marietta [147805]**  
Machine Id  
**JOHN DEERE 210G 1FF210GXHKF527616**  
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		<b>LEC0048099</b>	LEC0042014	LEC0028402
Sample Date		Client Info		<b>21 Feb 2024</b>	17 Jul 2023	23 May 2022
Machine Age	hrs	Client Info		<b>2945</b>	2199	930
Oil Age	hrs	Client Info		<b>2945</b>	2199	930
Filter Age	hrs	Client Info		<b>746</b>	1247	930
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>14</b>	15	21
Iron	ppm	ASTM D5185m	>32	<b>0</b>	2	4
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>9	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m	>28	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	2
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	VLITE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

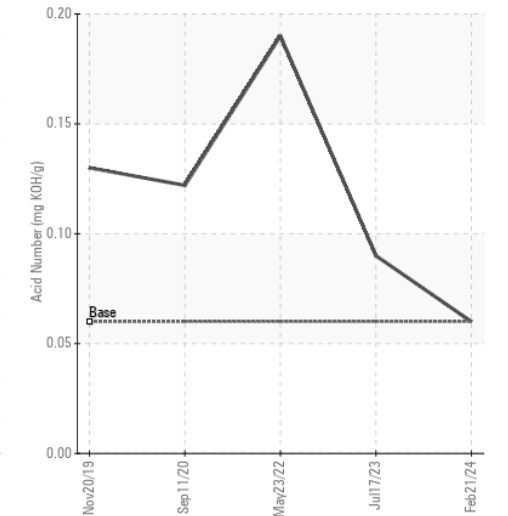
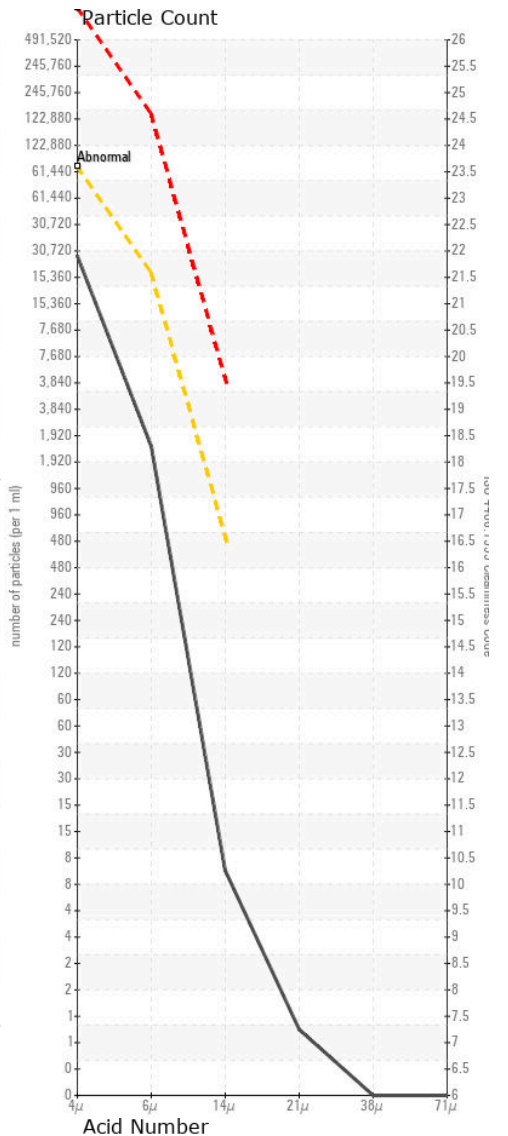
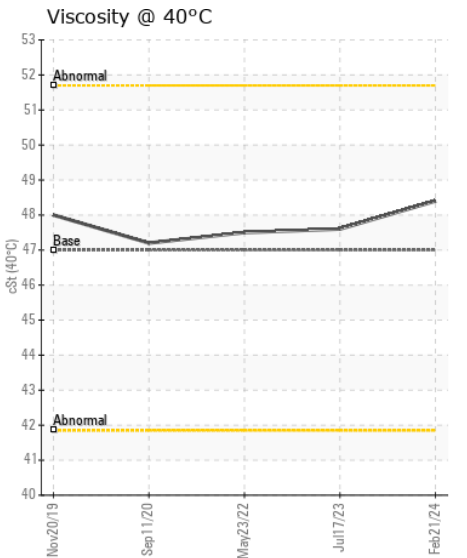
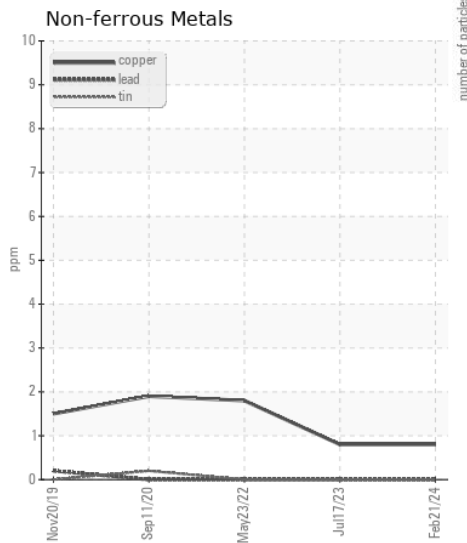
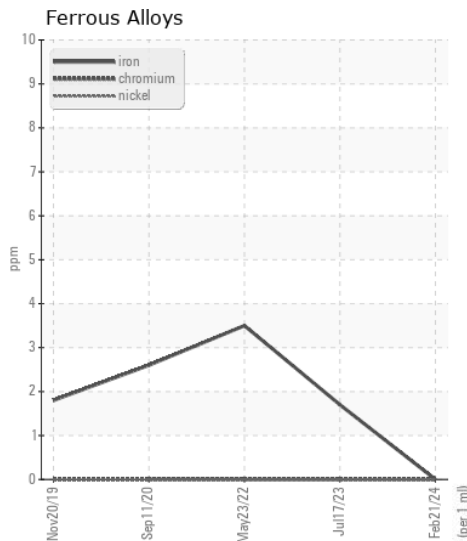
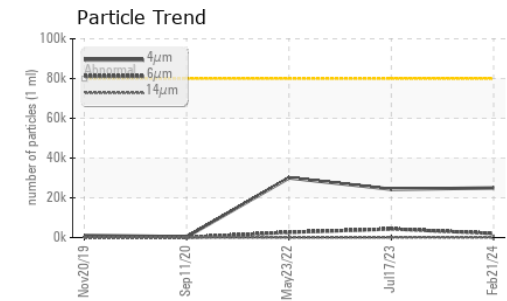
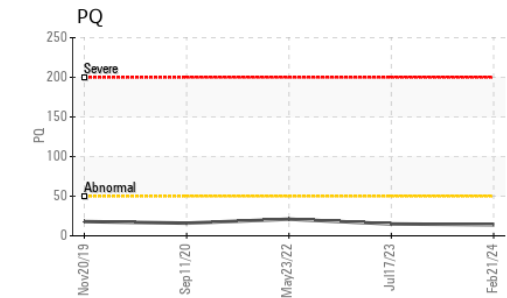
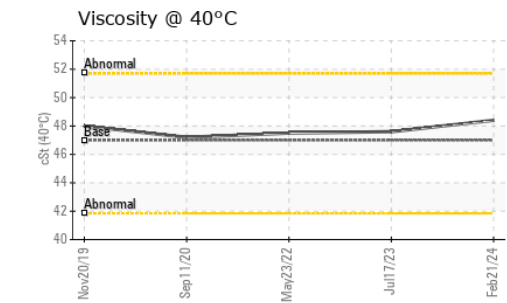
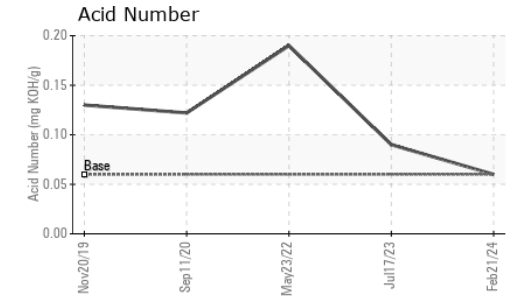
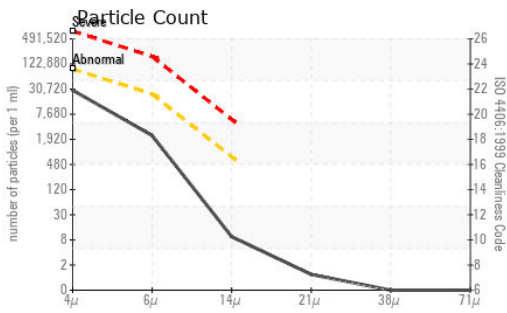
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>1</b>	0	<1
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>24978</b>	24306	30054
Particles >6µm		ASTM D7647	>20000	<b>2067</b>	4327	2644
Particles >14µm		ASTM D7647	>640	<b>8</b>	81	11
Particles >21µm		ASTM D7647	>160	<b>1</b>	15	3
Particles >38µm		ASTM D7647	>40	<b>0</b>	1	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>22/18/10</b>	22/19/14	22/19/11
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>0</b>	0	<1
Boron	ppm	ASTM D5185m		<b>0</b>	0	3
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	1	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>1</b>	0	0
Calcium	ppm	ASTM D5185m		<b>29</b>	2	0
Phosphorus	ppm	ASTM D5185m	827	<b>650</b>	597	512
Zinc	ppm	ASTM D5185m	0	<b>14</b>	11	30
Sulfur	ppm	ASTM D5185m	13	<b>40</b>	33	128
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.06</b>	0.09	0.19
Visc @ 40°C	cSt	ASTM D445	47	<b>48.4</b>	47.6	47.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0048099 **Received** : 23 Feb 2024  
**Lab Number** : 06099055 **Tested** : 26 Feb 2024  
**Unique Number** : 10897285 **Diagnosed** : 26 Feb 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

**LESLIE EQUIPMENT COMPANY**  
 105 TENNIS CENTER DR.  
 MARIETTA, OH  
 US 45750-9765  
 Contact: LEANNE KENDALL  
 KendalLeanne@lec1.com

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)

T:  
 F: (740)373-5570