



# OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

**ATTENTION**  
**ABNORMAL**  
**NORMAL**



Area  
**Store 8 - Pikeville**  
Machine Id  
**JOHN DEERE 210G 1FF210GXCNF530286**  
Component  
**Pump Drive**  
Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (1 QTS)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0049628</b>	LEC0042790	LEC0041076
Sample Date		Client Info		<b>10 Apr 2024</b>	11 Oct 2023	13 Jul 2023
Machine Age	hrs	Client Info		<b>1919</b>	1570	1083
Oil Age	hrs	Client Info		<b>1919</b>	1570	1083
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>None</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>30</b>	16	21
Iron	ppm	ASTM D5185m	>151	<b>148</b>	92	84
Chromium	ppm	ASTM D5185m	>11	<b>3</b>	2	2
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>21	<b>11</b>	0	5
Lead	ppm	ASTM D5185m	>51	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>51	<b>3</b>	2	1
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

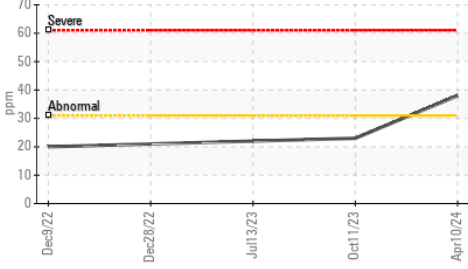
Silicon	ppm	ASTM D5185m	>31	<b>38</b>	23	22
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	4	2
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

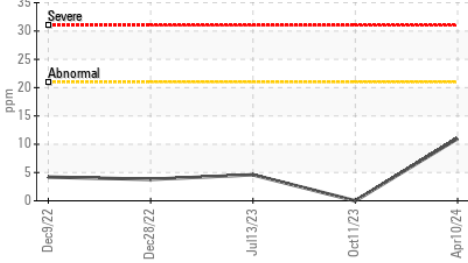
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>51	<b>12</b>	6	8
Boron	ppm	ASTM D5185m		<b>155</b>	52	41
Barium	ppm	ASTM D5185m		<b>10</b>	4	6
Molybdenum	ppm	ASTM D5185m		<b>198</b>	106	104
Manganese	ppm	ASTM D5185m		<b>5</b>	4	4
Magnesium	ppm	ASTM D5185m		<b>304</b>	17	18
Calcium	ppm	ASTM D5185m		<b>4651</b>	3819	4273
Phosphorus	ppm	ASTM D5185m		<b>1639</b>	1163	1221
Zinc	ppm	ASTM D5185m		<b>1808</b>	1369	1416
Sulfur	ppm	ASTM D5185m		<b>10228</b>	9419	10227
Visc @ 40°C	cSt	ASTM D445	117	<b>57.4</b>	60.5	61.9

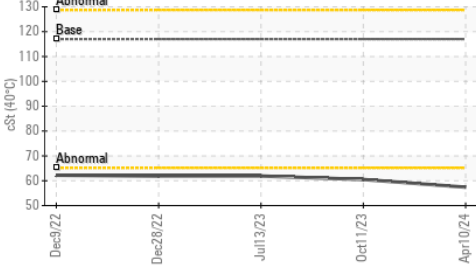
▲ Silicon (ppm)



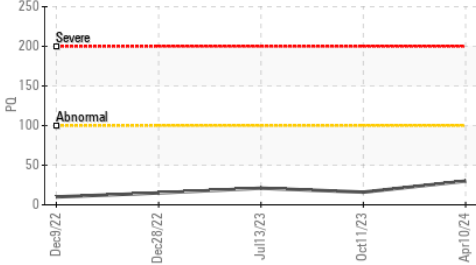
● Aluminum (ppm)



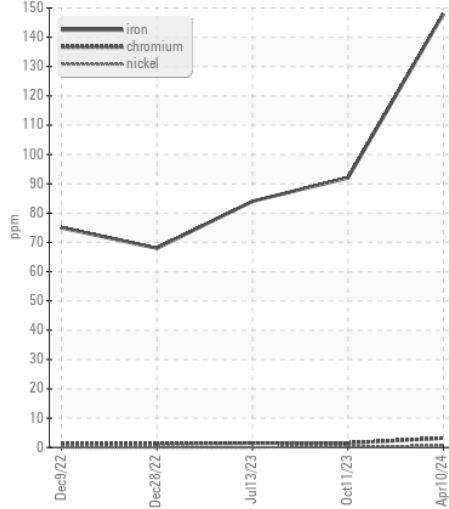
Viscosity @ 40°C



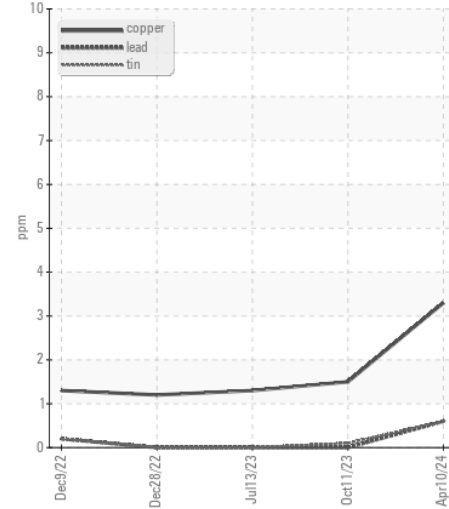
PQ



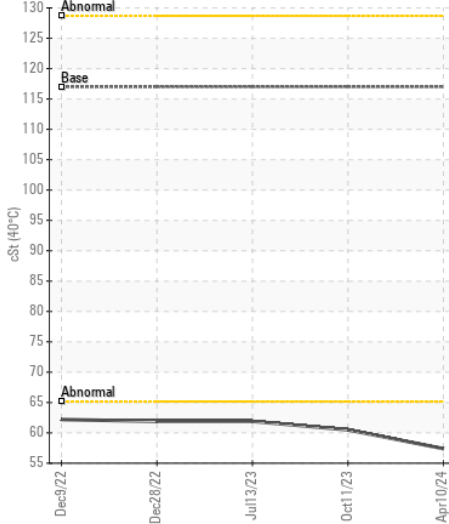
Ferrous Alloys



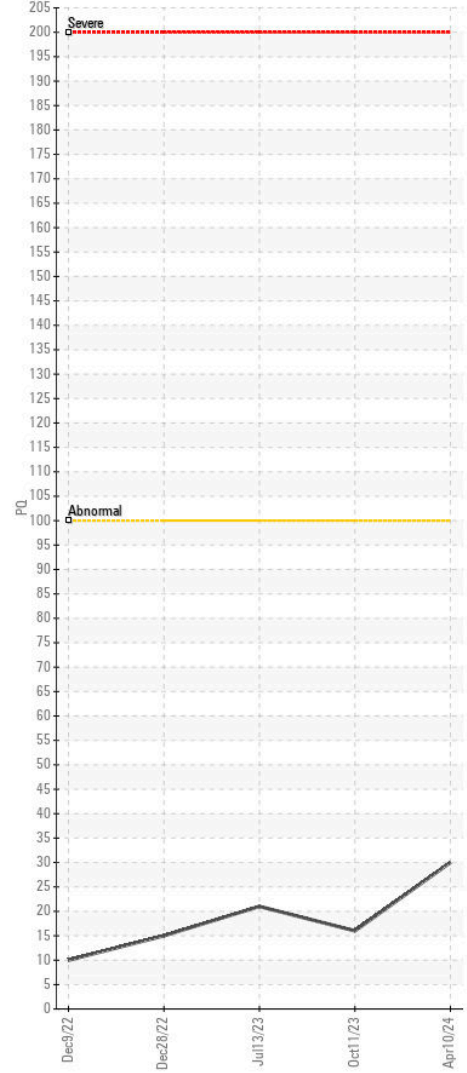
Non-ferrous Metals



Viscosity @ 40°C



PQ



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : LEC0049628 Received : 15 Apr 2024  
 Lab Number : 06149672 Tested : 16 Apr 2024  
 Unique Number : 10979750 Diagnosed : 18 Apr 2024 - Jonathan Hester  
 Test Package : CONST ( Additional Tests: PQ )

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)

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