



# OIL ANALYSIS REPORT

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

Area

{unassigned}

Machine Id

**JOHN DEERE 331G 1T0331GMELF370068**

Component

**Diesel Engine**

Fluid

**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (3 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please note that this is a corrected copy for data entry updates for total unit time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0046526</b>	LEC0035701	LEC0015795
Sample Date		Client Info		<b>21 Dec 2023</b>	20 Jan 2023	20 Oct 2020
Machine Age	hrs	Client Info		<b>1295</b>	1123	497
Oil Age	hrs	Client Info		<b>172</b>	626	497
Filter Age	hrs	Client Info		<b>172</b>	626	497
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>46</b>	▲ 77	17
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	2
Aluminum	ppm	ASTM D5185m	>31	<b>6</b>	7	4
Lead	ppm	ASTM D5185m	>26	<b>0</b>	2	<1
Copper	ppm	ASTM D5185m	>26	<b>15</b>	▲ 51	▲ 336
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

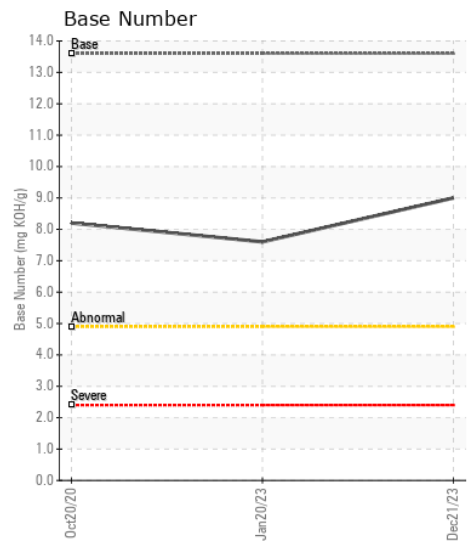
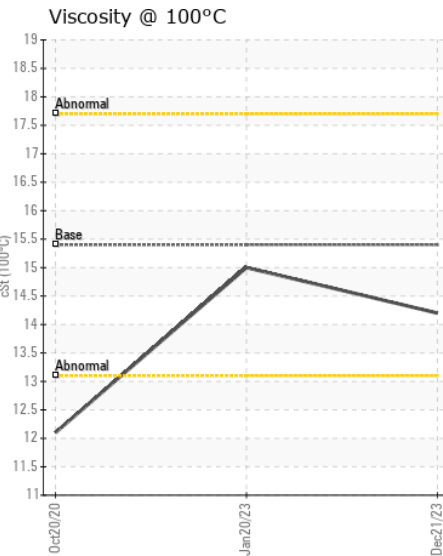
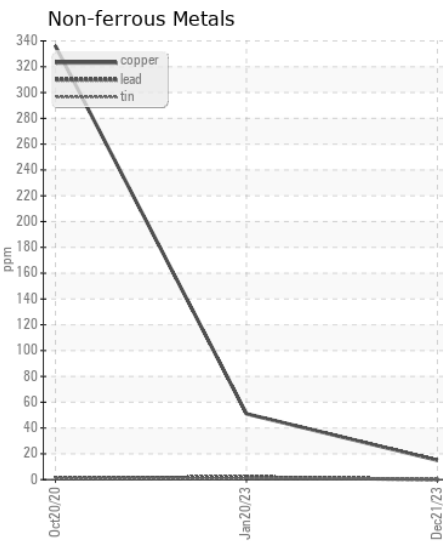
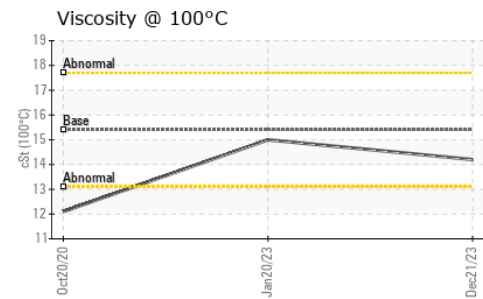
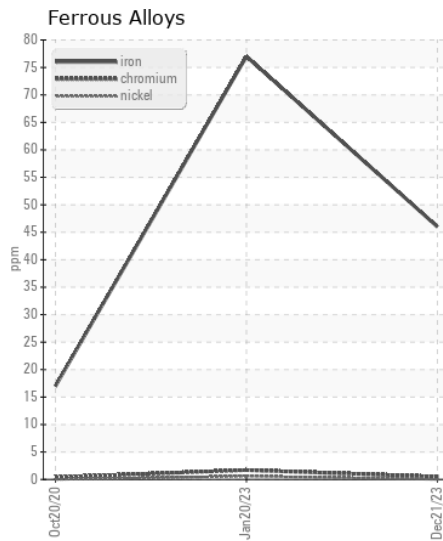
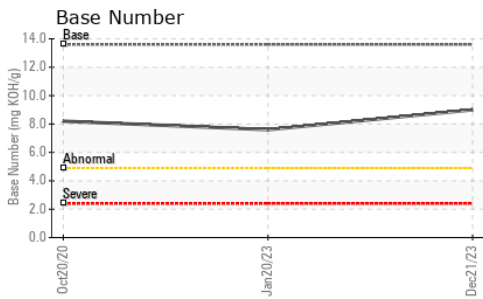
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	<b>16</b>	▲ 27	▲ 56
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	<1
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	0.3	▲ 3.3
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.7	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.2</b>	14.2	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.4</b>	29.9	26.3
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	>0.21	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>4</b>	5	8
Boron	ppm	ASTM D5185m		<b>212</b>	60	211
Barium	ppm	ASTM D5185m		<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>255</b>	256	233
Manganese	ppm	ASTM D5185m		<b>1</b>	2	1
Magnesium	ppm	ASTM D5185m		<b>812</b>	830	742
Calcium	ppm	ASTM D5185m		<b>1550</b>	1847	1688
Phosphorus	ppm	ASTM D5185m		<b>936</b>	942	864
Zinc	ppm	ASTM D5185m		<b>1123</b>	1238	1091
Sulfur	ppm	ASTM D5185m		<b>2814</b>	3225	2825
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.9</b>	28.9	24.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.0</b>	7.6	8.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.2</b>	15.0	▲ 12.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0046526 **Received** : 26 Dec 2023  
**Lab Number** : 06044365 **Tested** : 13 Feb 2024  
**Unique Number** : 10804973 **Diagnosed** : 13 Feb 2024 - Doug Bogart  
**Test Package** : CONST ( Additional Tests: TBN )

**LESLIE EQUIPMENT COMPANY**  
 105 TENNIS CENTER DR.  
 MARIETTA, OH  
 US 45750-9765  
 Contact: LEANNE KENDALL  
 KendalLeanne@lec1.com  
 T:  
 F: (740)373-5570

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)