



# OIL ANALYSIS REPORT

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



Area  
**SOLD LOCATIONS - LESCHI - CHILLICOTHE**  
 Machine Id  
**JOHN DEERE 644J DW644JZ616347**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (7 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0038956</b>	LEC0033125	LEC0027610
Sample Date		Client Info		<b>15 Feb 2023</b>	24 May 2022	04 Jan 2022
Machine Age	hrs	Client Info		<b>17371</b>	16524	15997
Oil Age	hrs	Client Info		<b>847</b>	527	973
Filter Age	hrs	Client Info		<b>847</b>	0	973
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m		<b>28</b>	20	27
Chromium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m		<b>4</b>	3	4
Lead	ppm	ASTM D5185m		<b>6</b>	3	7
Copper	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Tin	ppm	ASTM D5185m		<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.

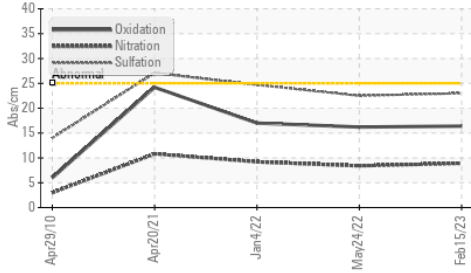
Silicon	ppm	ASTM D5185m		<b>7</b>	7	10
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	2
Fuel		WC Method		<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method		<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>1.1</b>	0.5	1.4
Nitration	Abs/cm	*ASTM D7624		<b>8.9</b>	8.4	9.2
Sulfation	Abs/.1mm	*ASTM D7415		<b>23.0</b>	22.5	24.7
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		<b>NEG</b>	NEG	NEG

## FLUID CONDITION

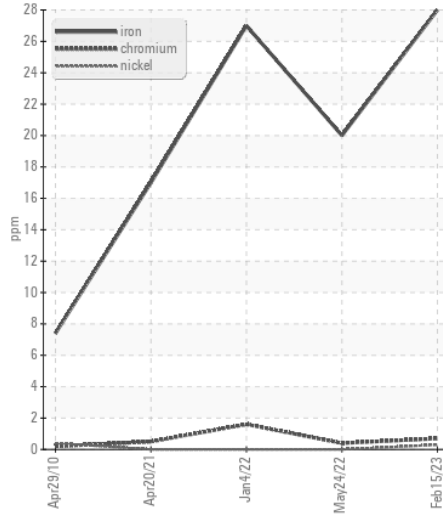
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	1	<1
Boron	ppm	ASTM D5185m		<b>211</b>	240	148
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>230</b>	240	189
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>745</b>	796	664
Calcium	ppm	ASTM D5185m		<b>1493</b>	1504	1463
Phosphorus	ppm	ASTM D5185m		<b>840</b>	884	819
Zinc	ppm	ASTM D5185m		<b>1070</b>	1027	976
Sulfur	ppm	ASTM D5185m		<b>3445</b>	2678	2774
Oxidation	Abs/.1mm	*ASTM D7414		<b>16.4</b>	16.2	17
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.0</b>	9.2	8.3
Visc @ 100°C	cSt	ASTM D445		<b>14.5</b>	14.3	14.5

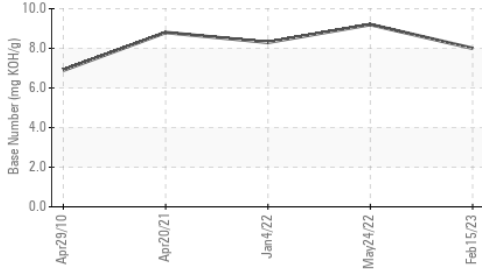
**FT-IR (Direct Trend)**



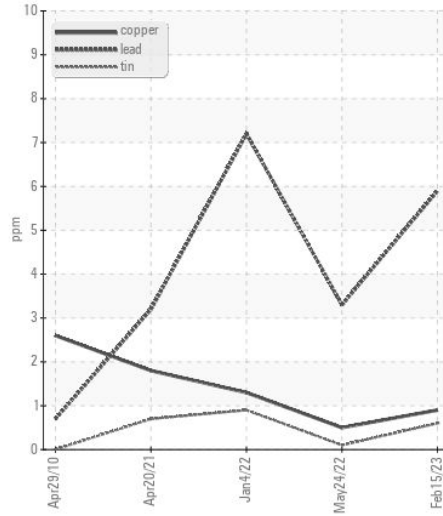
**Ferrous Alloys**



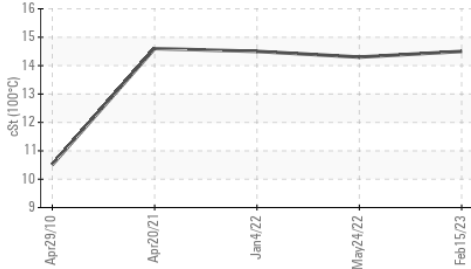
**Base Number**



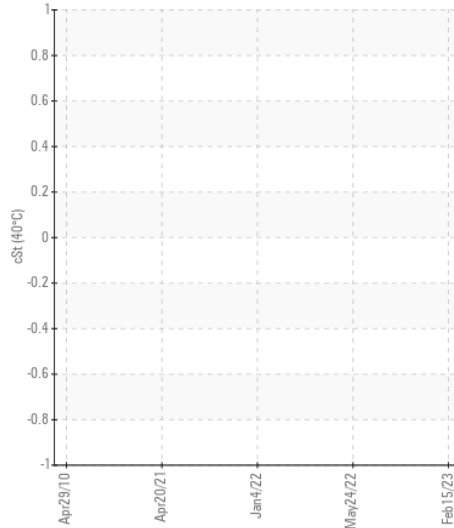
**Non-ferrous Metals**



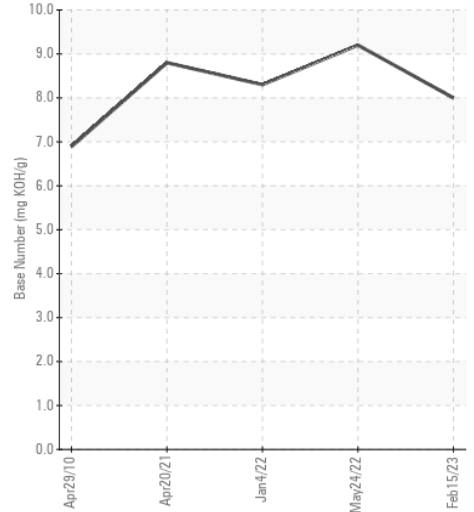
**Viscosity @ 100°C**



**Viscosity @ 40°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0038956 **Received** : 17 Feb 2023  
**Lab Number** : 05770620 **Tested** : 20 Feb 2023  
**Unique Number** : 10345237 **Diagnosed** : 20 Feb 2023 - Angela Borella  
**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)