



# OIL ANALYSIS REPORT

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



Area  
**Store 5 - Cross Lanes [142403]**  
Machine Id  
**JOHN DEERE 544P 1DW544PAVNLZ13715**  
Component  
**Diesel Engine**  
Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0041925</b>	LEC0037446	LEC0037247
Sample Date		Client Info		<b>25 Aug 2023</b>	25 Apr 2023	01 Dec 2022
Machine Age	hrs	Client Info		<b>1585</b>	1236	729
Oil Age	hrs	Client Info		<b>349</b>	507	500
Filter Age	hrs	Client Info		<b>349</b>	507	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>6</b>	10	28
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	2
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	<1	3
Lead	ppm	ASTM D5185m	>26	<b>0</b>	0	2
Copper	ppm	ASTM D5185m	>26	<b>8</b>	▲ 80	▲ 624
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<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.

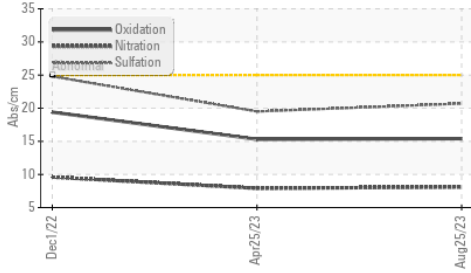
Silicon	ppm	ASTM D5185m	>120	<b>6</b>	6	12
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	2
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	0.0
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	7.9	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.7</b>	19.5	24.8
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

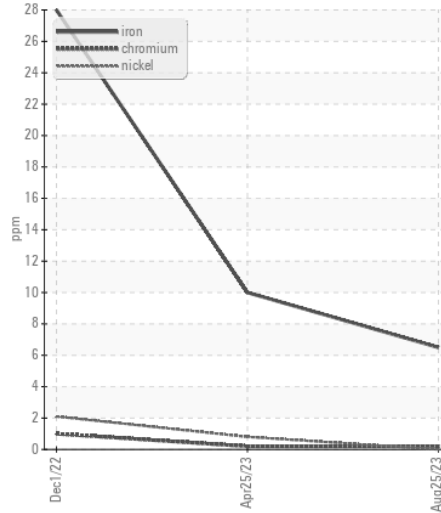
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	0	7
Boron	ppm	ASTM D5185m		<b>322</b>	279	224
Barium	ppm	ASTM D5185m		<b>0</b>	0	3
Molybdenum	ppm	ASTM D5185m		<b>264</b>	254	244
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	5
Magnesium	ppm	ASTM D5185m		<b>877</b>	748	770
Calcium	ppm	ASTM D5185m		<b>1529</b>	1390	1443
Phosphorus	ppm	ASTM D5185m		<b>927</b>	878	861
Zinc	ppm	ASTM D5185m		<b>1120</b>	1058	978
Sulfur	ppm	ASTM D5185m		<b>3682</b>	2871	3265
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.4</b>	15.3	19.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.2</b>	7.3	9.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	12.9	● 9.5

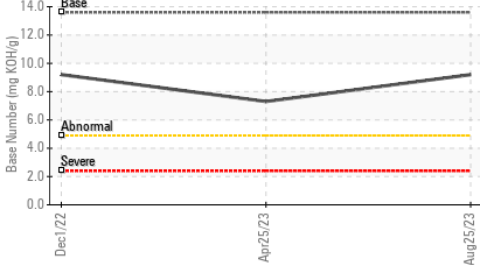
FT-IR (Direct Trend)



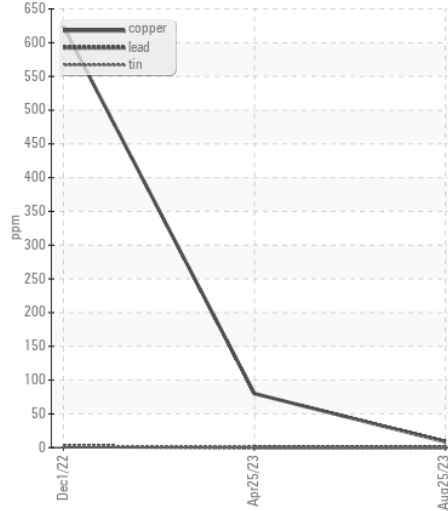
Ferrous Alloys



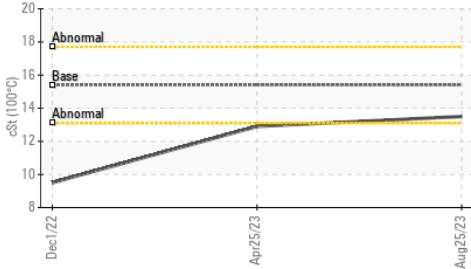
Base Number



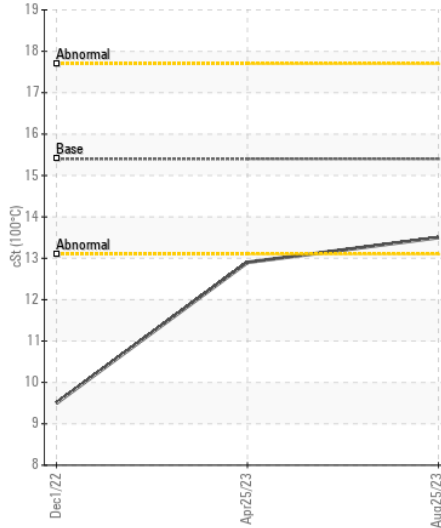
Non-ferrous Metals



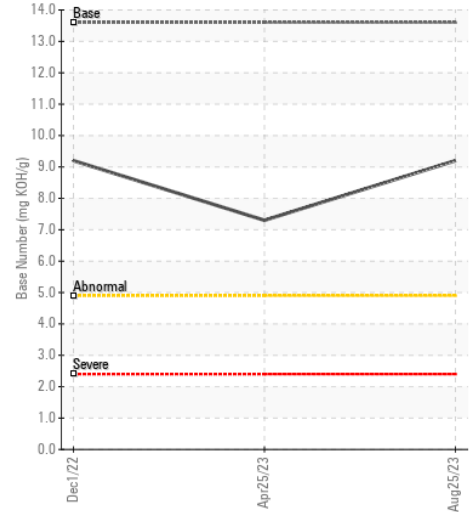
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0041925 **Received** : 29 Aug 2023  
**Lab Number** : 05937086 **Tested** : 29 Aug 2023  
**Unique Number** : 10622357 **Diagnosed** : 29 Aug 2023 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**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)

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