



# OIL ANALYSIS REPORT

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

Machine Id  
**JOHN DEERE 370E 1DW370ETAHF680855**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WE0006950</b>	WE0004365	---
Sample Date		Client Info		<b>16 Apr 2024</b>	05 Jul 2023	---
Machine Age	hrs	Client Info		<b>6000</b>	4986	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>8</b>	7	---
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>31	<b>6</b>	4	---
Lead	ppm	ASTM D5185m	>26	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>26	<b>3</b>	2	---
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

There is no indication of any contamination in the oil.

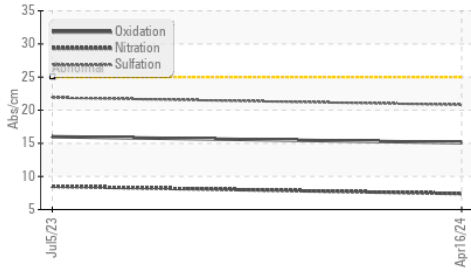
Silicon	ppm	ASTM D5185m	>22	<b>8</b>	7	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	---
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.21	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	8.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.8</b>	21.9	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	NEG	---

## FLUID CONDITION

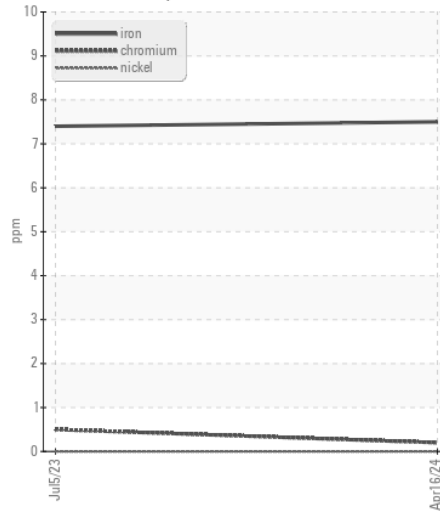
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>10</b>	13	---
Boron	ppm	ASTM D5185m		<b>299</b>	286	---
Barium	ppm	ASTM D5185m		<b>3</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>223</b>	252	---
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>813</b>	824	---
Calcium	ppm	ASTM D5185m		<b>1396</b>	1384	---
Phosphorus	ppm	ASTM D5185m		<b>900</b>	876	---
Zinc	ppm	ASTM D5185m		<b>1035</b>	1019	---
Sulfur	ppm	ASTM D5185m		<b>3395</b>	3418	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	16.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.4</b>	9.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.5	---

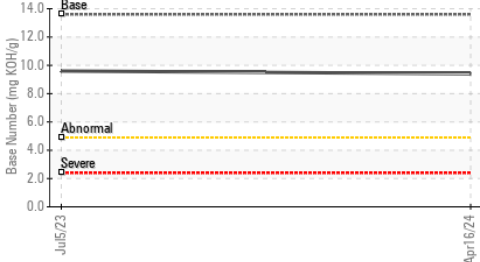
FT-IR (Direct Trend)



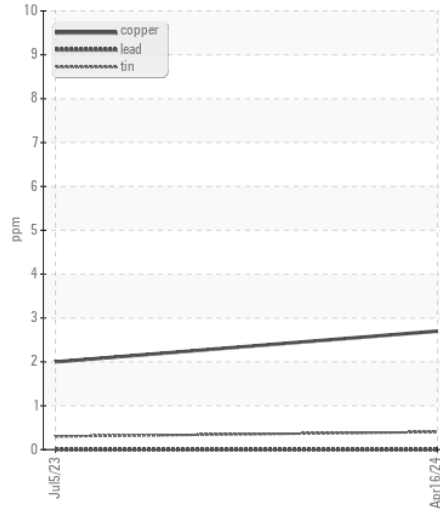
Ferrous Alloys



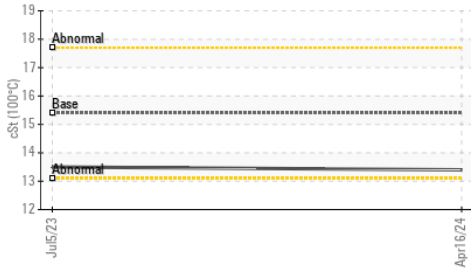
Base Number



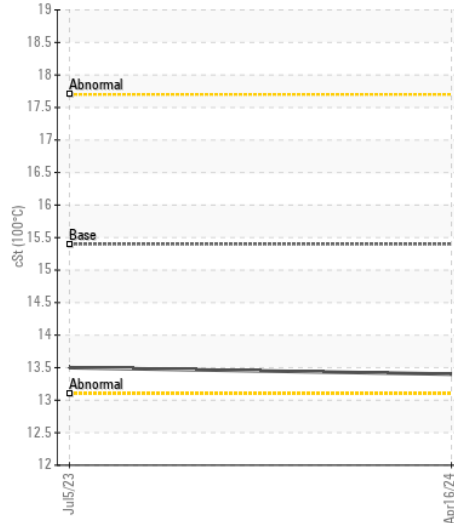
Non-ferrous Metals



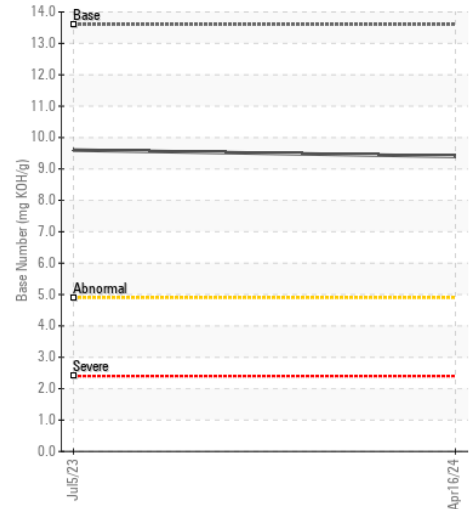
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WE0006950 **Received** : 22 Apr 2024  
**Lab Number** : 06155643 **Tested** : 23 Apr 2024  
**Unique Number** : 10991066 **Diagnosed** : 23 Apr 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**WARRIOR TRACTOR AND EQUIPMENT - NORTHPORT**  
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 NORTHPORT, AL  
 US 35476  
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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)