



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

Area  
**[W51964]**

Machine Id  
**JOHN DEERE 470 P 1FF470PACNF000010**

Component  
**Diesel Engine**

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

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0211398</b>	JR0199994	JR0179617
Sample Date		Client Info		<b>21 May 2024</b>	22 Feb 2024	16 Nov 2023
Machine Age	hrs	Client Info		<b>3479</b>	2965	2444
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
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	>51	<b>23</b>	30	18
Chromium	ppm	ASTM D5185m	>11	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>1</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	5	3
Lead	ppm	ASTM D5185m	>26	<b>18</b>	21	13
Copper	ppm	ASTM D5185m	>26	<b>6</b>	5	6
Tin	ppm	ASTM D5185m	>4	<b>2</b>	2	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

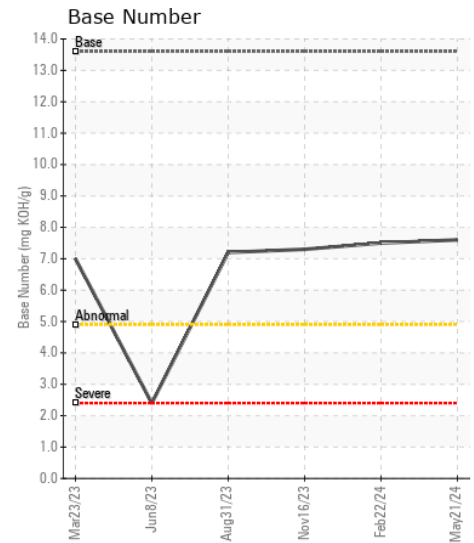
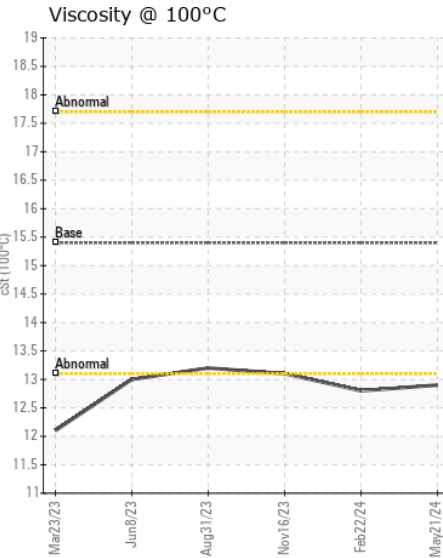
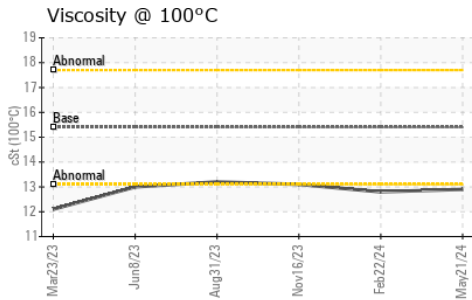
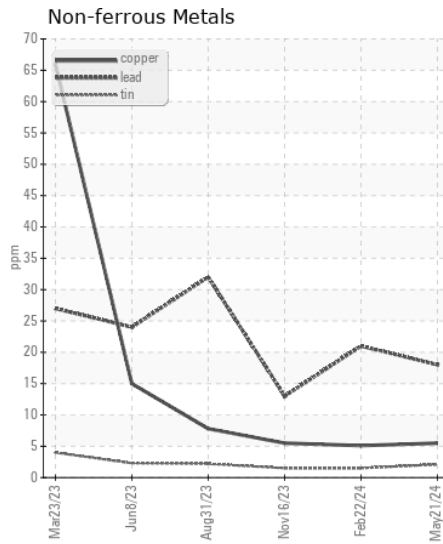
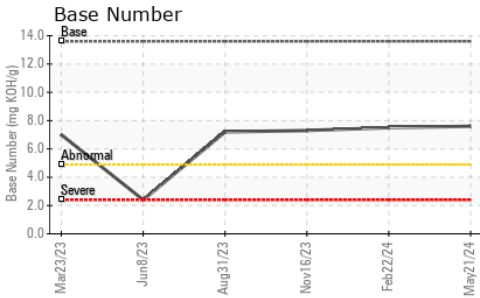
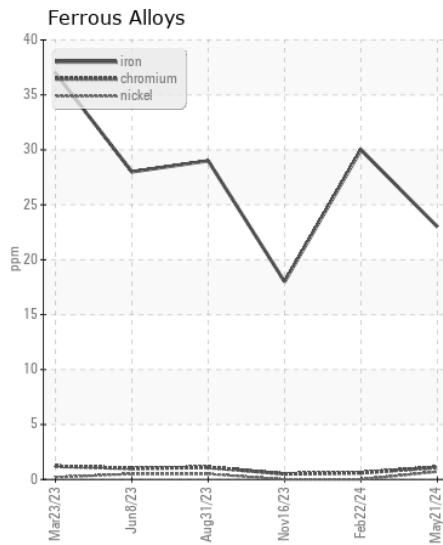
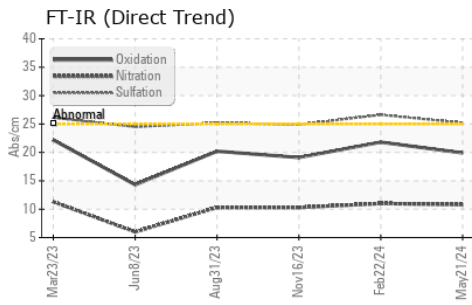
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>9</b>	8	9
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	3	4
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	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.8</b>	11.0	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.2</b>	26.6	24.9
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>5</b>	6	6
Boron	ppm	ASTM D5185m		<b>63</b>	64	71
Barium	ppm	ASTM D5185m		<b>2</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>245</b>	235	213
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>812</b>	878	733
Calcium	ppm	ASTM D5185m		<b>1458</b>	1517	1624
Phosphorus	ppm	ASTM D5185m		<b>869</b>	900	928
Zinc	ppm	ASTM D5185m		<b>1083</b>	1082	1092
Sulfur	ppm	ASTM D5185m		<b>3074</b>	3183	2966
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.9</b>	21.8	19.1
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.6</b>	7.5	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.9</b>	12.8	13.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0211398 **Received** : 28 May 2024  
**Lab Number** : 06191971 **Tested** : 29 May 2024  
**Unique Number** : 11048723 **Diagnosed** : 30 May 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: TBN )

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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)