



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area

**[05W45125]**

Machine Id

**JOHN DEERE 1FF300GXALF731581**

Component

**Diesel Engine**

Fluid

**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (22 QTS)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0208530</b>	JR0187520	JR0166707
Sample Date		Client Info		<b>27 Feb 2024</b>	02 Oct 2023	04 Apr 2023
Machine Age	hrs	Client Info		<b>3963</b>	3458	2951
Oil Age	hrs	Client Info		<b>505</b>	507	2471
Filter Age	hrs	Client Info		<b>505</b>	507	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>25</b>	33	22
Chromium	ppm	ASTM D5185m	>11	<b>2</b>	2	1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	2	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>3</b>	3	2
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>26	<b>4</b>	4	2
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

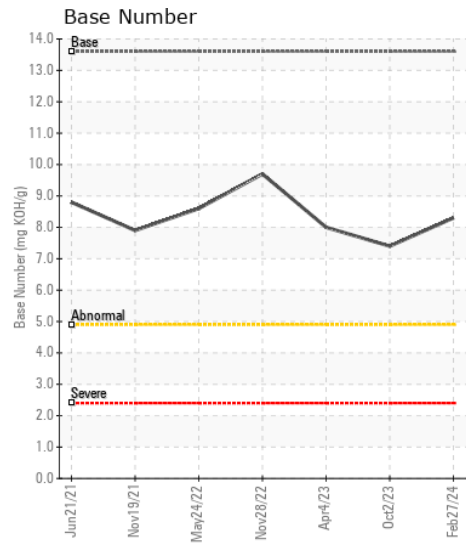
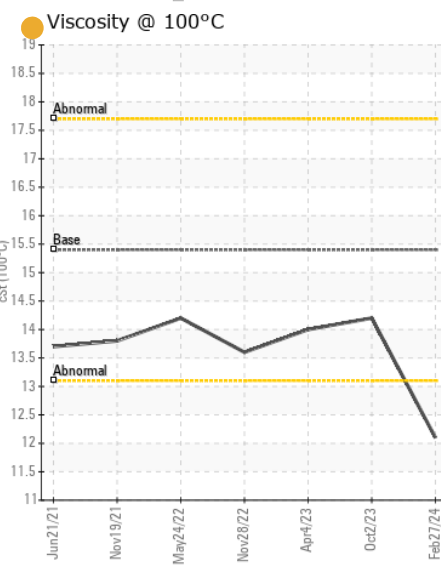
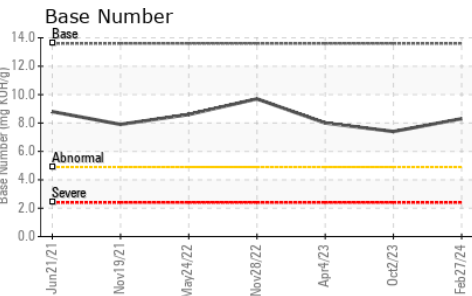
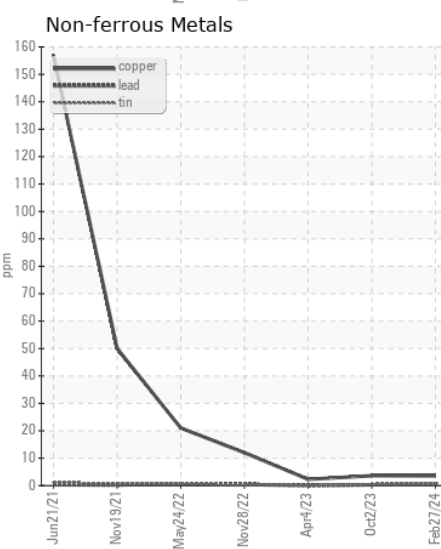
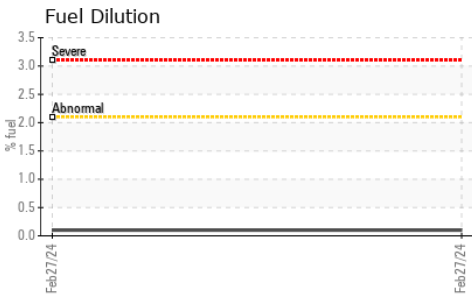
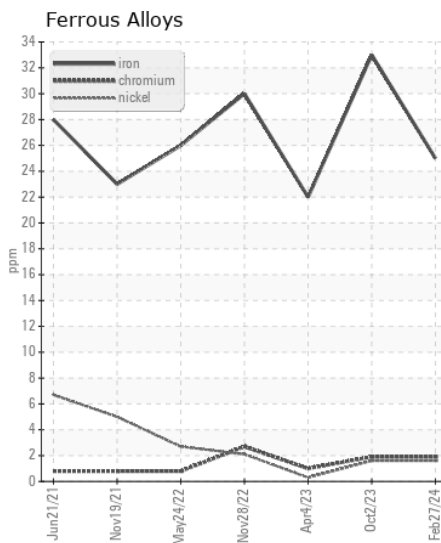
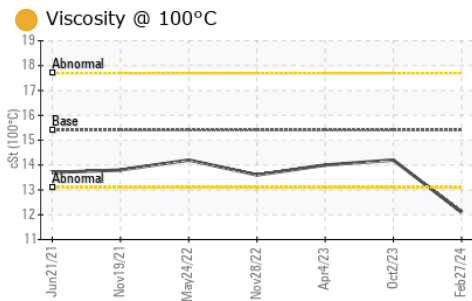
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>8</b>	10	9
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	0
Fuel	%	ASTM D3524	>2.1	<b>0.1</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>8.4</b>	9.1	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.4</b>	23.3	22.2
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>31	<b>3</b>	4	2
Boron	ppm	ASTM D5185m		<b>78</b>	114	145
Barium	ppm	ASTM D5185m		<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>151</b>	277	227
Manganese	ppm	ASTM D5185m		<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>452</b>	835	657
Calcium	ppm	ASTM D5185m		<b>2042</b>	1514	1537
Phosphorus	ppm	ASTM D5185m		<b>884</b>	913	846
Zinc	ppm	ASTM D5185m		<b>1053</b>	1160	1125
Sulfur	ppm	ASTM D5185m		<b>3190</b>	3138	3314
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.2</b>	17.1	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.3</b>	7.4	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.1</b>	14.2	14.0



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0208530 **Received** : 28 Feb 2024  
**Lab Number** : 06102707 **Tested** : 04 Mar 2024  
**Unique Number** : 10900937 **Diagnosed** : 04 Mar 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**FITZGERALD EXCAVATING**  
 PO BOX 2168  
 WINCHESTER, VA  
 US 22604  
 Contact: Service Manager

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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