



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

Area  
**[W51159]**

Machine Id  
**JOHN DEERE 350G 1FF350GXCJF812889**

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>JR0200051</b>	JR0088728	JR0049372
Sample Date		Client Info		<b>12 Apr 2024</b>	03 May 2021	02 Jun 2020
Machine Age	hrs	Client Info		<b>6074</b>	2573	2468
Oil Age	hrs	Client Info		<b>0</b>	105	500
Filter Age	hrs	Client Info		<b>0</b>	105	500
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>46</b>	34	38
Chromium	ppm	ASTM D5185m	>11	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>31	<b>3</b>	0	6
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>26	<b>&lt;1</b>	1	3
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

There is no indication of any contamination in the oil.

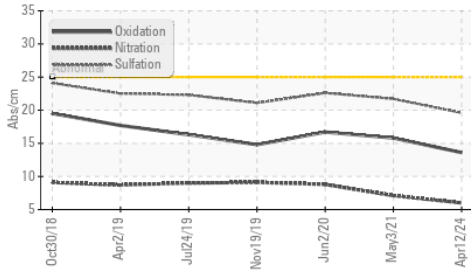
Silicon	ppm	ASTM D5185m	>22	<b>8</b>	5	7
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	11
Fuel	%	ASTM D3524	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.0</b>	7.1	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.6</b>	21.7	22.6
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

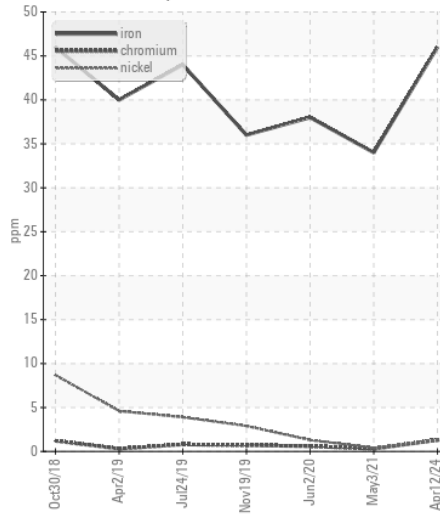
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	3	3
Boron	ppm	ASTM D5185m		<b>348</b>	244	171
Barium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185m		<b>97</b>	243	241
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>481</b>	767	882
Calcium	ppm	ASTM D5185m		<b>1456</b>	1388	1485
Phosphorus	ppm	ASTM D5185m		<b>1010</b>	858	872
Zinc	ppm	ASTM D5185m		<b>1195</b>	944	996
Sulfur	ppm	ASTM D5185m		<b>3781</b>	2695	2455
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.6</b>	15.8	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.3</b>	10	8.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.8</b>	13.7	13.4

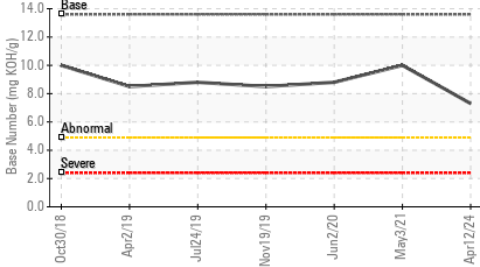
**FT-IR (Direct Trend)**



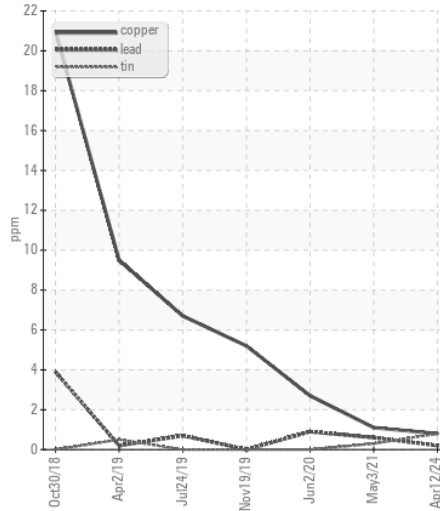
**Ferrous Alloys**



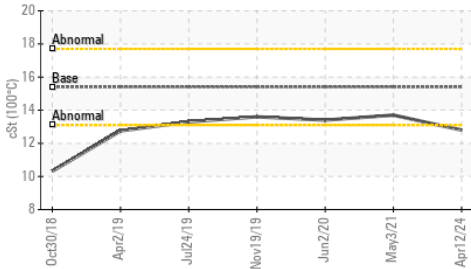
**Base Number**



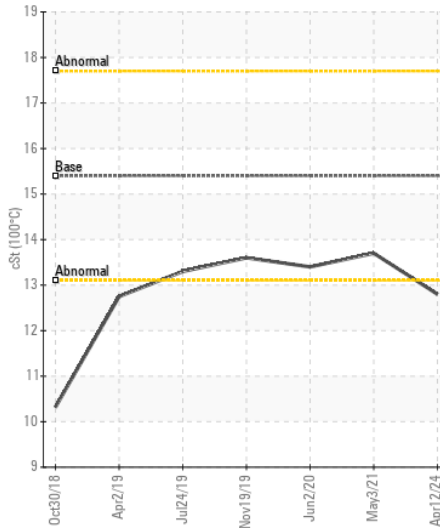
**Non-ferrous Metals**



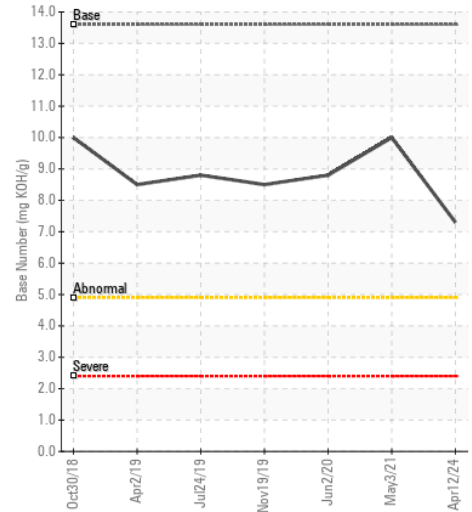
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0200051 **Received** : 19 Apr 2024  
**Lab Number** : 06154161 **Tested** : 23 Apr 2024  
**Unique Number** : 10989584 **Diagnosed** : 23 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: FuelDilution, TBN )

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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