



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

Machine Id  
**JOHN DEERE 135G 1FF135GXVJF500896**  
 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>JR0222216</b>	JR0185802	JR0152860
Sample Date		Client Info		<b>07 Jul 2024</b>	08 Oct 2023	15 Dec 2022
Machine Age	hrs	Client Info		<b>5604</b>	5235	4537
Oil Age	hrs	Client Info		<b>369</b>	698	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>8</b>	4	5
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>6</b>	3	3
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>26	<b>1</b>	<1	2
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	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.

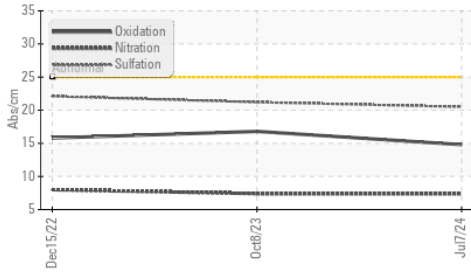
Silicon	ppm	ASTM D5185m	>22	<b>8</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Fuel	%	ASTM D3524	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	7.4	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.5</b>	21.2	22.1
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

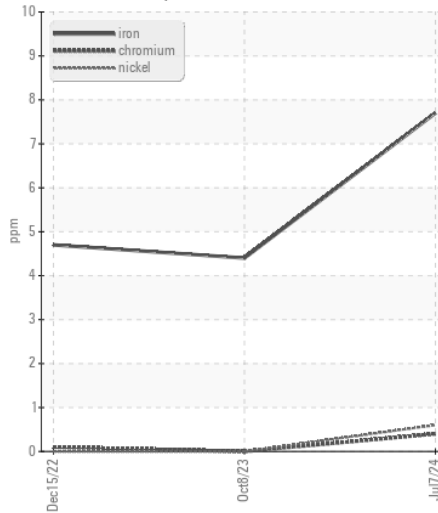
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	2	2
Boron	ppm	ASTM D5185m		<b>281</b>	194	246
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>237</b>	177	226
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>779</b>	727	793
Calcium	ppm	ASTM D5185m		<b>1403</b>	1603	1486
Phosphorus	ppm	ASTM D5185m		<b>905</b>	892	826
Zinc	ppm	ASTM D5185m		<b>1063</b>	1086	1017
Sulfur	ppm	ASTM D5185m		<b>3103</b>	3000	3018
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.8</b>	16.8	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.7</b>	9.2	10.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.9</b>	12.5	13.1

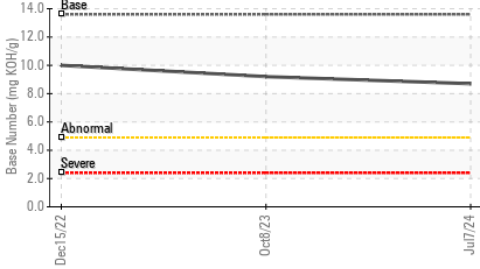
**FT-IR (Direct Trend)**



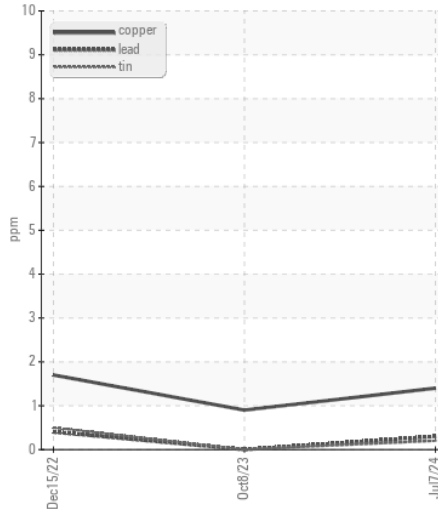
**Ferrous Alloys**



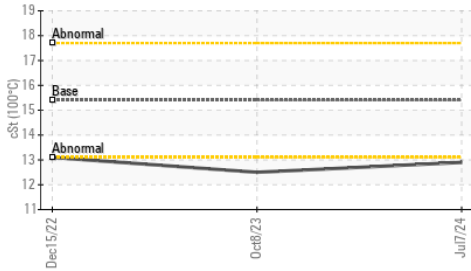
**Base Number**



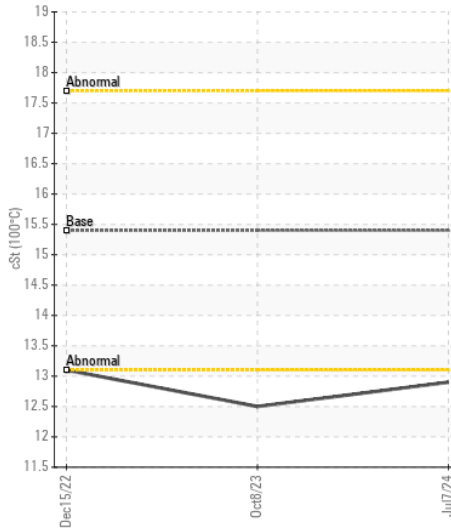
**Non-ferrous Metals**



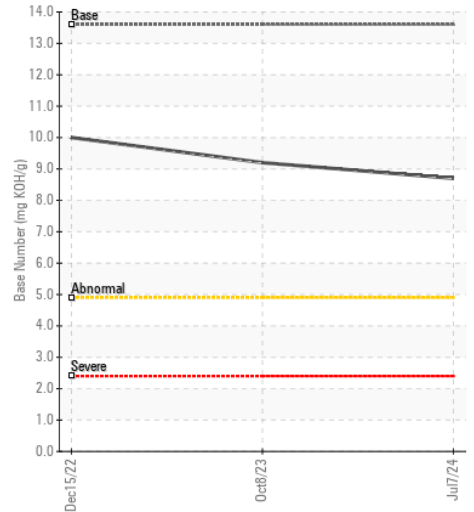
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0222216 **Received** : 10 Jul 2024  
**Lab Number** : 06232048 **Tested** : 11 Jul 2024  
**Unique Number** : 11115541 **Diagnosed** : 11 Jul 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**JRE - GARNER**  
 4161 AUBURN CHURCH RD  
 GARNER, NC  
 US 27529

Contact: RALEIGH SHOP  
 sean.betts@jamesriverequipment.com; catherine.anastasio@wearcheck.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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