



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

Machine Id  
**JOHN DEERE 290G 1FF290GXPC705546**

Component  
**Diesel Engine**

Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0194471</b>	JR0187945	JR0158241
Sample Date		Client Info		<b>11 Jan 2024</b>	07 Sep 2023	29 Mar 2023
Machine Age	hrs	Client Info		<b>9612</b>	9127	8599
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>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>25</b>	33	32
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	4	4
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>26	<b>1</b>	1	<1
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<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

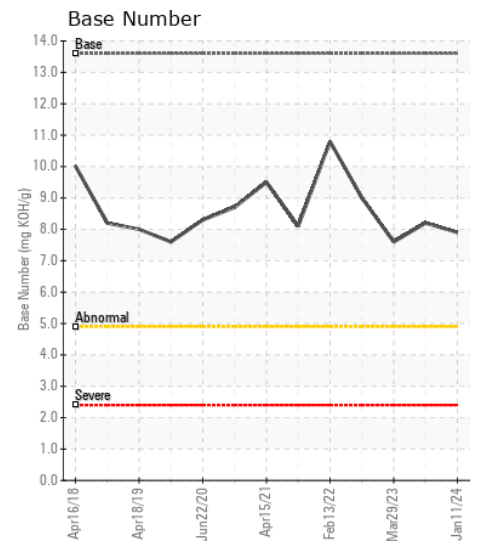
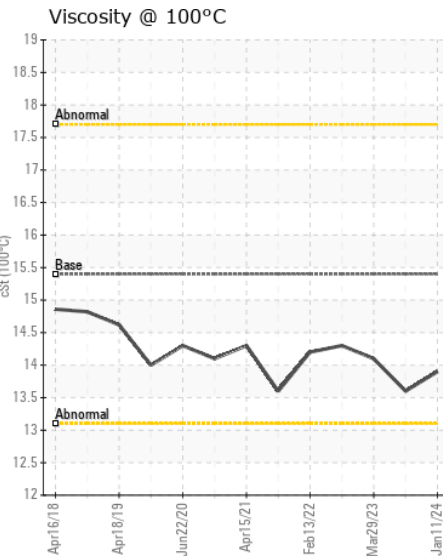
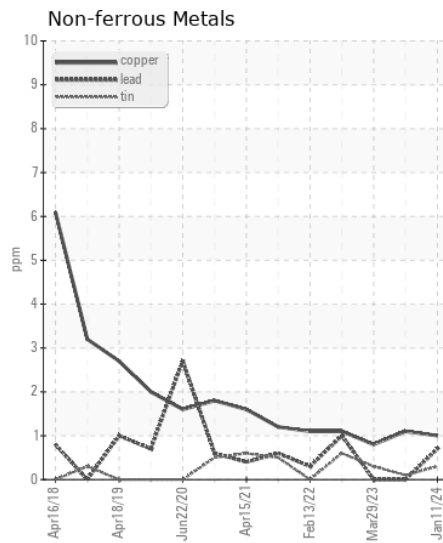
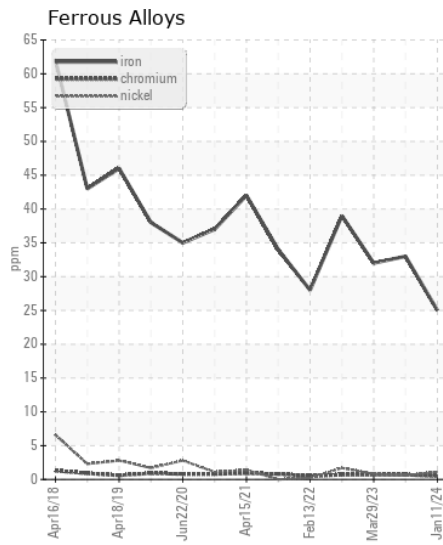
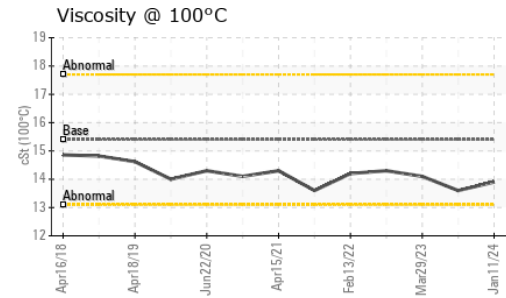
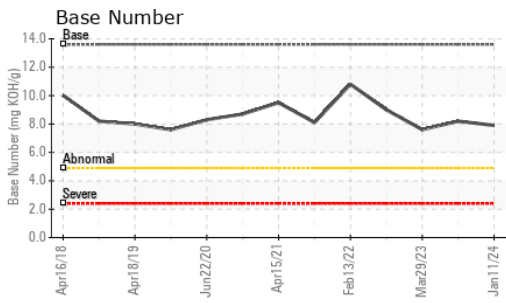
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>9</b>	7	7
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	0
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>0.6</b>	1	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.4</b>	10.3	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.2</b>	25.3	25.2
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 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>&lt;1</b>	3	4
Boron	ppm	ASTM D5185m		<b>176</b>	73	107
Barium	ppm	ASTM D5185m		<b>3</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>248</b>	228	235
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>796</b>	825	758
Calcium	ppm	ASTM D5185m		<b>1562</b>	1702	1489
Phosphorus	ppm	ASTM D5185m		<b>940</b>	914	795
Zinc	ppm	ASTM D5185m		<b>1159</b>	1132	1013
Sulfur	ppm	ASTM D5185m		<b>3276</b>	3549	2924
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.4</b>	18.0	18.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.9</b>	8.2	7.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.9</b>	13.6	14.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0194471 **Received** : 12 Jan 2024  
**Lab Number** : 06059147 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830529 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: 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)

**JRE - GREENSBORO**  
 411 SOUTH REGIONAL ROAD  
 GREENSBORO, NC  
 US 27409  
 Contact: NICK GALLAHER  
 NGALLAHER@JRENET.COM  
 T: (336)668-2762  
 F: (336)665-9556