



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

Machine Id  
**JOHN DEERE 470G 1FF470GXXKJF235252**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (46 GAL)**

### 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>JR0217658</b>	JR0187441	JR0170348
Sample Date		Client Info		<b>13 May 2024</b>	03 Oct 2023	11 Aug 2023
Machine Age	hrs	Client Info		<b>5860</b>	5460	5370
Oil Age	hrs	Client Info		<b>0</b>	0	426
Filter Age	hrs	Client Info		<b>0</b>	0	426
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>18</b>	8	21
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<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>6</b>	3	6
Lead	ppm	ASTM D5185m	>26	<b>2</b>	<1	8
Copper	ppm	ASTM D5185m	>26	<b>5</b>	2	5
Tin	ppm	ASTM D5185m	>4	<b>2</b>	1	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

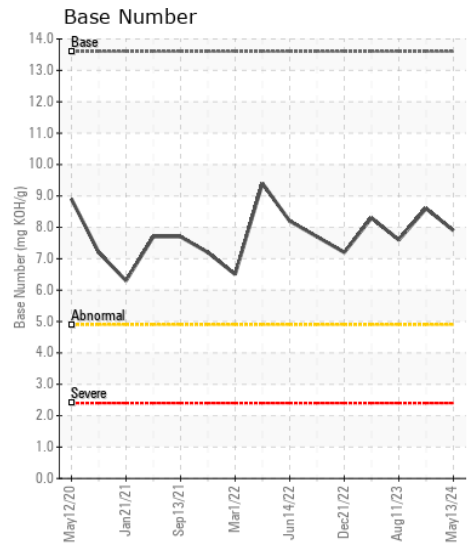
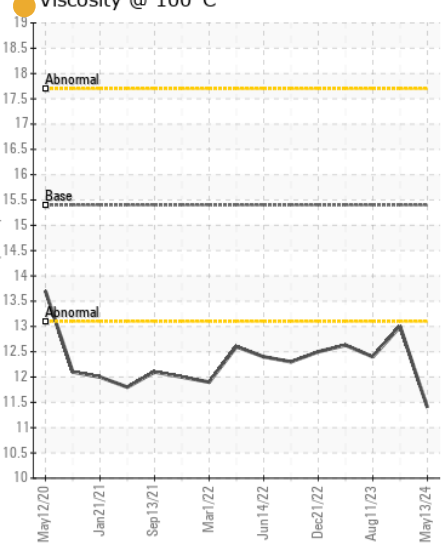
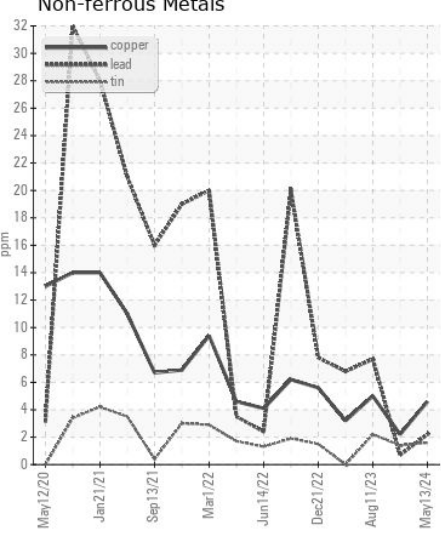
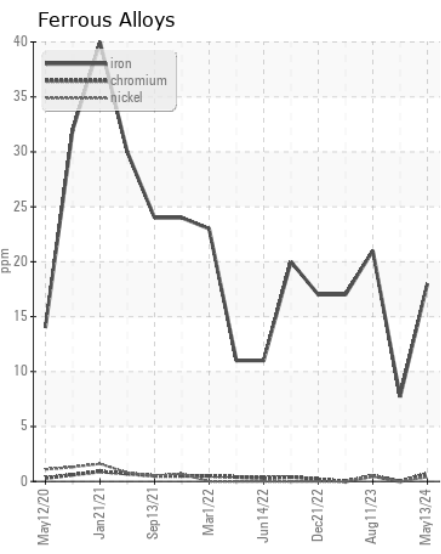
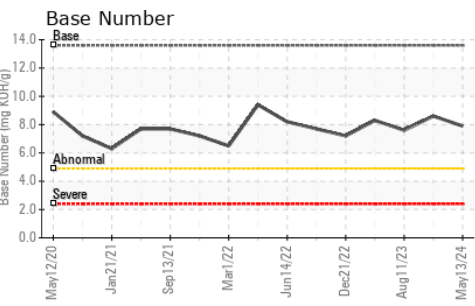
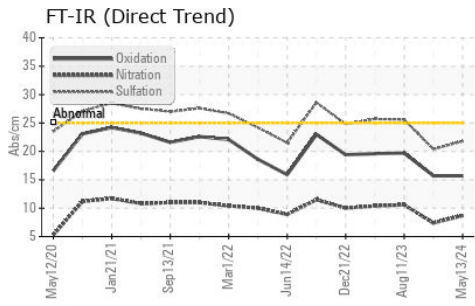
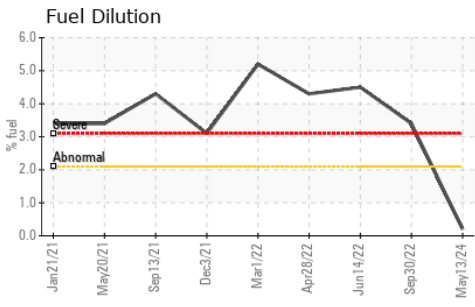
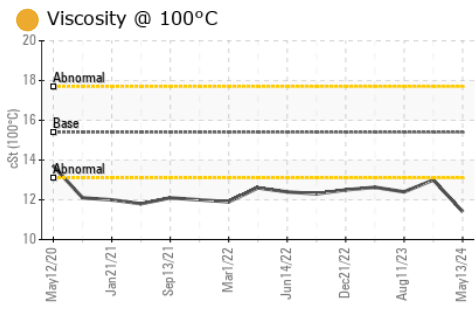
Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>8</b>	8	11
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	5	5
Fuel	%	ASTM D3524	>2.1	<b>0.2</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>0.2</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	7.4	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.8</b>	20.4	25.6
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 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>	6	7
Boron	ppm	ASTM D5185m		<b>118</b>	239	83
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>153</b>	233	238
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>549</b>	775	818
Calcium	ppm	ASTM D5185m		<b>1784</b>	1391	1406
Phosphorus	ppm	ASTM D5185m		<b>927</b>	847	832
Zinc	ppm	ASTM D5185m		<b>1100</b>	1012	1048
Sulfur	ppm	ASTM D5185m		<b>3216</b>	2903	3508
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.7</b>	15.7	19.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.9</b>	8.6	7.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>11.4</b>	13.0	12.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0217658 **Received** : 14 May 2024  
**Lab Number** : 06178492 **Tested** : 16 May 2024  
**Unique Number** : 11029818 **Diagnosed** : 16 May 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**JRE - MANASSAS PARK**  
 9107 OWENS DRIVE  
 MANASSAS PARK, VA  
 US 20111  
 Contact: DON VEST  
 dvest@jamesriverequipment.com  
 T: (703)631-8500  
 F: (703)631-4715

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)