



Area  
**[W31901 ASHLAND AG]**

Machine Id  
**JOHN DEERE 6110M 41006053 (S/N 1L016110MJNG169319)**

Component  
**Diesel Engine**

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

**RECOMMENDATION**

The oil 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>JR0163905</b>	---	---
Sample Date		Client Info		<b>31 Oct 2023</b>	---	---
Machine Age	hrs	Client Info		<b>377</b>	---	---
Oil Age	hrs	Client Info		<b>377</b>	---	---
Filter Age	hrs	Client Info		<b>377</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>ATTENTION</b>	---	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>19</b>	---	---
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>31	<b>6</b>	---	---
Lead	ppm	ASTM D5185m	>26	<b>3</b>	---	---
Copper	ppm	ASTM D5185m	>26	<b>21</b>	---	---
Tin	ppm	ASTM D5185m	>4	<b>2</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

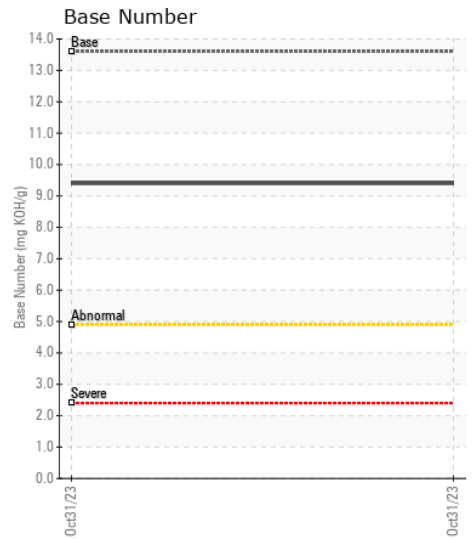
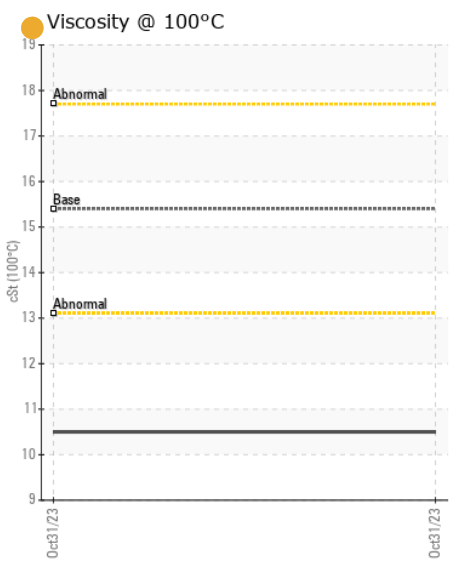
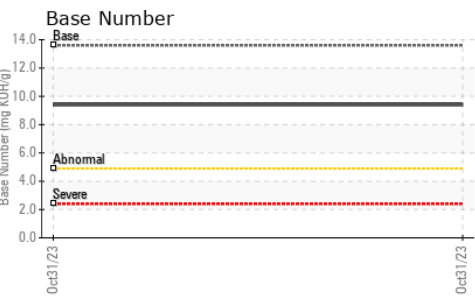
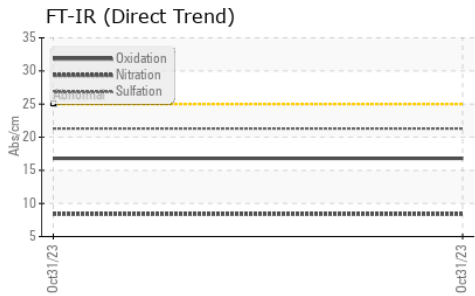
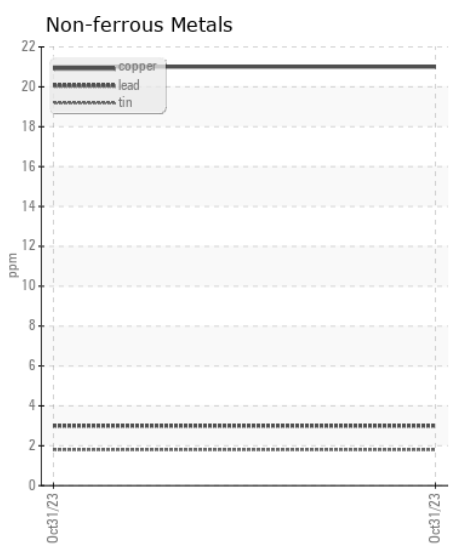
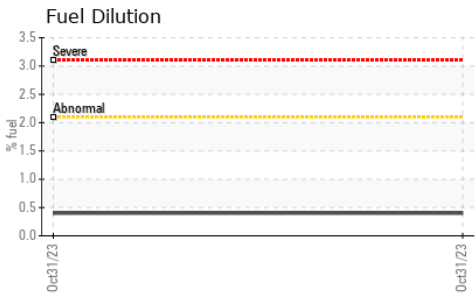
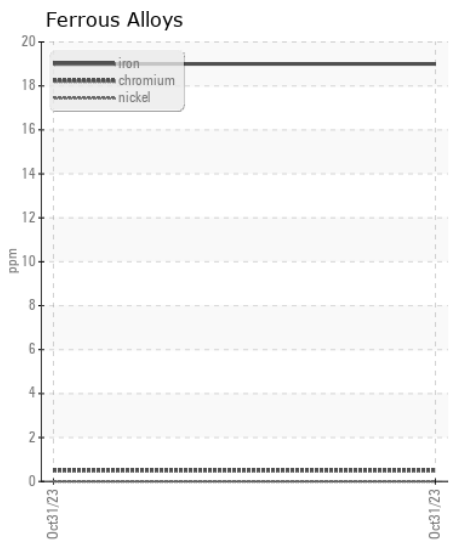
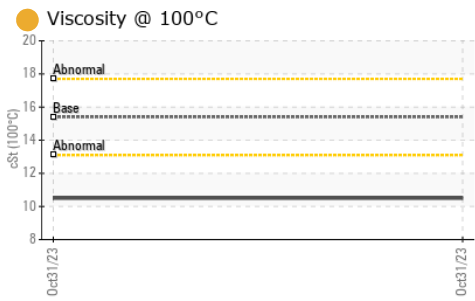
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>11</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>14</b>	---	---
Fuel	%	ASTM D3524	>2.1	<b>0.4</b>	---	---
Water		WC Method	>0.21	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.4</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.3</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	---	---

**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>4</b>	---	---
Boron	ppm	ASTM D5185m		<b>259</b>	---	---
Barium	ppm	ASTM D5185m		<b>2</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>259</b>	---	---
Manganese	ppm	ASTM D5185m		<b>3</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>813</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1349</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>821</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1005</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>3052</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.8</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.4</b>	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>10.5</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0163905 **Received** : 03 Nov 2023  
**Lab Number** : 05997777 **Tested** : 06 Nov 2023  
**Unique Number** : 10726137 **Diagnosed** : 06 Nov 2023 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**JRE - ASHLAND**  
 11053 LEADBETTER ROAD  
 ASHLAND, VA  
 US 23005  
 Contact: COLTON HANKS  
 colton.hanks@jamesriverequipment.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) F: (804)358-8431