



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

Area  
**[W22838-WILSON]**  
 Machine Id  
**JOHN DEERE 331G 1T0331GMCKF368277**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

### RECOMMENDATION

We advise that you check for the source of water entry. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0225873	---	---
Sample Date		Client Info		11 Jul 2024	---	---
Machine Age	hrs	Client Info		1450	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				ABNORMAL	---	---

### WEAR

The copper level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	38	---	---
Chromium	ppm	ASTM D5185m	>11	1	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m		1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	22	---	---
Lead	ppm	ASTM D5185m	>26	<1	---	---
Copper	ppm	ASTM D5185m	>26	▲ 50	---	---
Tin	ppm	ASTM D5185m	>4	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

### CONTAMINATION

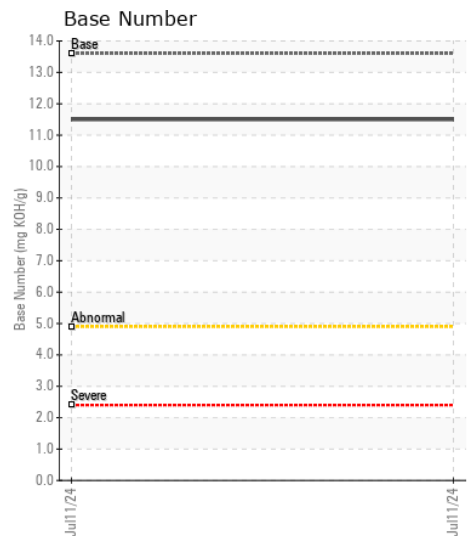
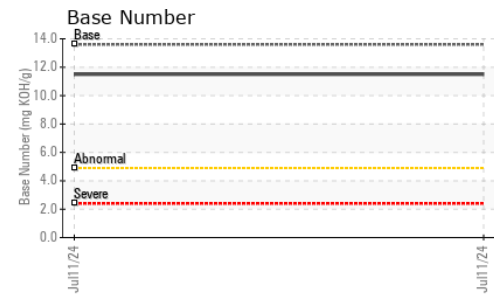
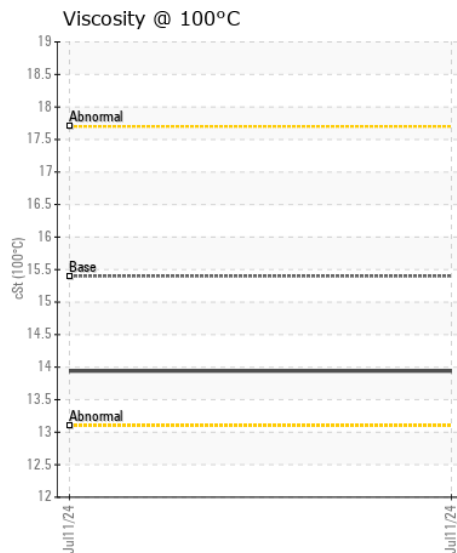
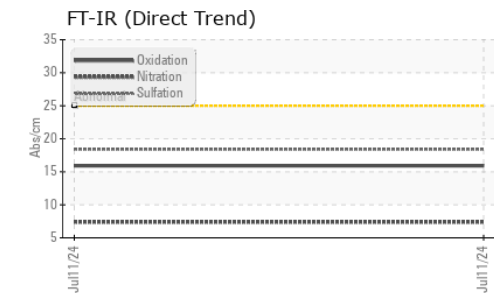
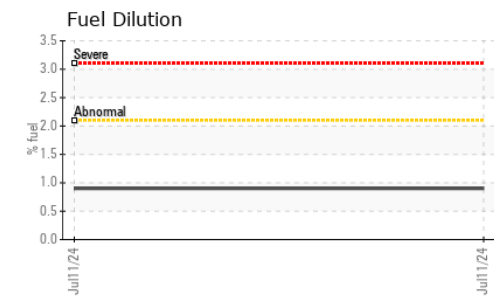
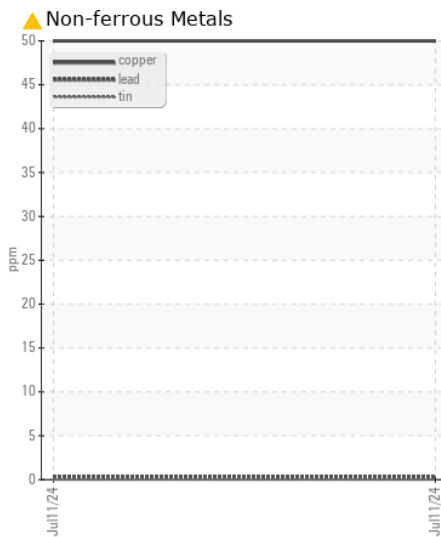
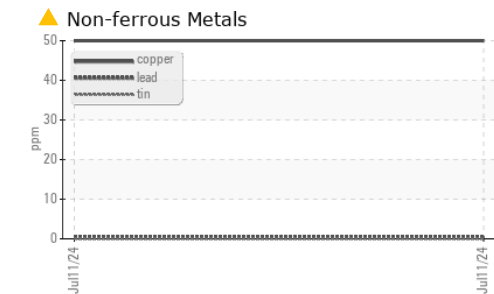
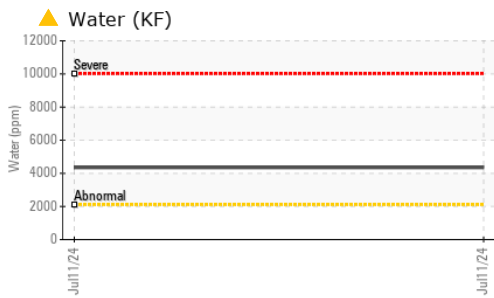
There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>22	13	---	---
Potassium	ppm	ASTM D5185m	>20	3	---	---
Fuel	%	ASTM D3524	>2.1	0.9	---	---
Water	%	ASTM D6304	>0.21	▲ 0.435	---	---
ppm Water	ppm	ASTM D6304	>2100	▲ 4350	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.4	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.21	0.2%	---	---

### 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	2	---	---
Boron	ppm	ASTM D5185m		58	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		51	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m		510	---	---
Calcium	ppm	ASTM D5185m		1719	---	---
Phosphorus	ppm	ASTM D5185m		1085	---	---
Zinc	ppm	ASTM D5185m		1272	---	---
Sulfur	ppm	ASTM D5185m		3857	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	11.5	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.94	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0225873  
**Lab Number** : 06237438  
**Unique Number** : 11126272  
**Test Package** : CONST ( Additional Tests: FuelDilution, KF, PercentFuel, TBN )

**Received** : 15 Jul 2024  
**Tested** : 18 Jul 2024  
**Diagnosed** : 19 Jul 2024 - Jonathan Hester

**JRE - BURKEVILLE**  
 510 WEST COLONIAL DR  
 BURKEVILLE, VA  
 US 23922

Contact: BRANDON BOLLING  
 bbolling@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)

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