



# OIL ANALYSIS REPORT

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



Area  
**Store 2 - Beaver [RO#149101]**  
Machine Id  
**JOHN DEERE 550K 1T0550KKANF418184**  
Component  
**Diesel Engine**  
Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 10W30 (4 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. ( Customer Sample  
Comment: Replaced Eng. Sample new oil. Break in oil )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0048848</b>	LEC0048506	LEC0035463
Sample Date		Client Info		<b>11 Apr 2024</b>	06 Mar 2024	02 Oct 2023
Machine Age	hrs	Client Info		<b>628</b>	626	547
Oil Age	hrs	Client Info		<b>1</b>	109	30
Filter Age	hrs	Client Info		<b>1</b>	109	30
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	SEVERE	SEVERE

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>7</b>	13	8
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>31	<b>6</b>	5	5
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	2	<1
Copper	ppm	ASTM D5185m	>26	<b>1</b>	15	12
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

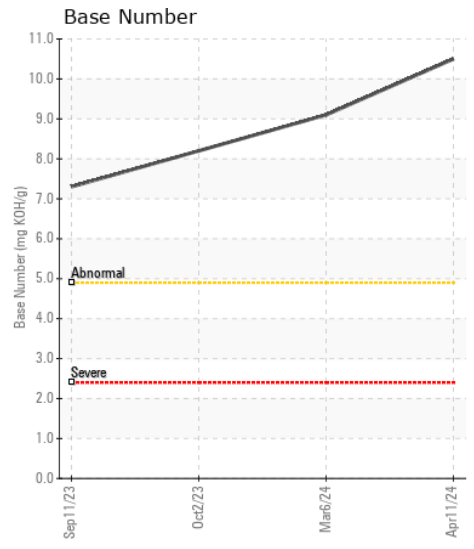
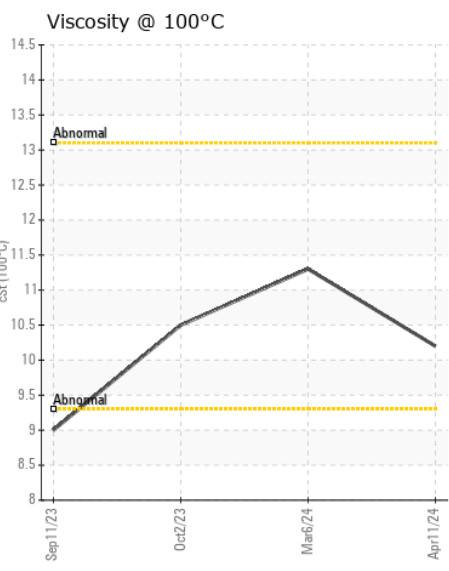
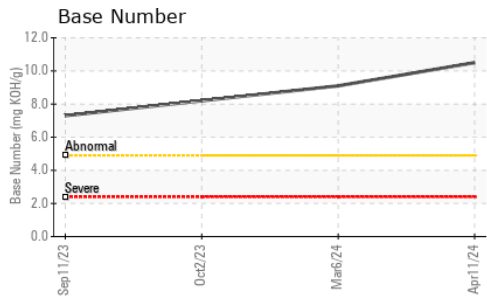
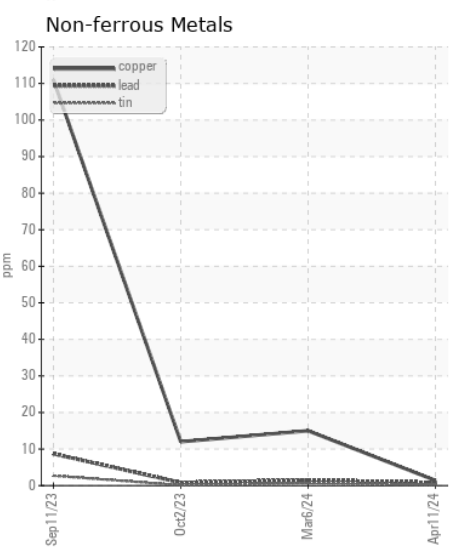
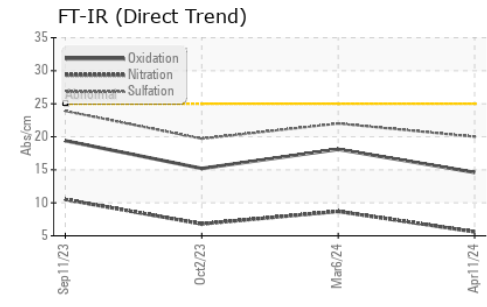
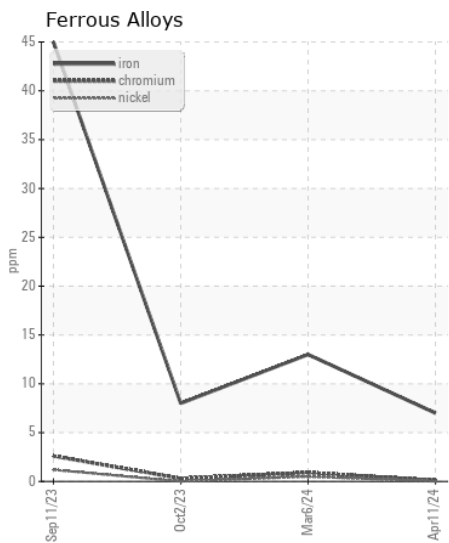
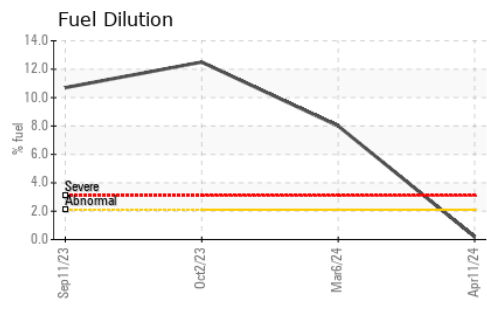
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	<b>9</b>	▲ 195	▲ 96
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	2
Fuel	%	ASTM D3524	>2.1	<b>0.2</b>	▲ 8.0	▲ 12.5
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.6</b>	8.7	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.0</b>	22.0	19.7
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>1</b>	<1	1
Boron	ppm	ASTM D5185m		<b>335</b>	255	290
Barium	ppm	ASTM D5185m		<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>255</b>	240	234
Manganese	ppm	ASTM D5185m		<b>3</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>880</b>	747	687
Calcium	ppm	ASTM D5185m		<b>1406</b>	1273	1167
Phosphorus	ppm	ASTM D5185m		<b>979</b>	875	806
Zinc	ppm	ASTM D5185m		<b>1098</b>	995	949
Sulfur	ppm	ASTM D5185m		<b>3753</b>	2988	2943
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.6</b>	18.1	15.2
Base Number (BN)	mg KOH/g	ASTM D2896		<b>10.5</b>	9.1	8.2
Visc @ 100°C	cSt	ASTM D445		<b>10.2</b>	▲ 11.3	▲ 10.5



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0048848 **Received** : 15 Apr 2024  
**Lab Number** : 06149292 **Tested** : 17 Apr 2024  
**Unique Number** : 10979370 **Diagnosed** : 17 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PercentFuel, TBN )

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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)