



**LEAHY-WOLF**  
Lubricating specialists since 1946

OIL ANALYSIS REPORT

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

Area

**BEELMAN**

Machine Id

**John Deere 824K-11 (S/N 1DW824KXTFD671169)**

Component

**Diesel Engine**

Fluid

**CITGO 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LW0009116</b>	LW0008295	LW0007340
Sample Date		Client Info		<b>02 Jul 2024</b>	07 Feb 2024	14 Sep 2023
Machine Age	hrs	Client Info		<b>6039</b>	5526	5161
Oil Age	hrs	Client Info		<b>6039</b>	5526	5161
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
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	>100	<b>75</b>	26	2
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>4</b>	5	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

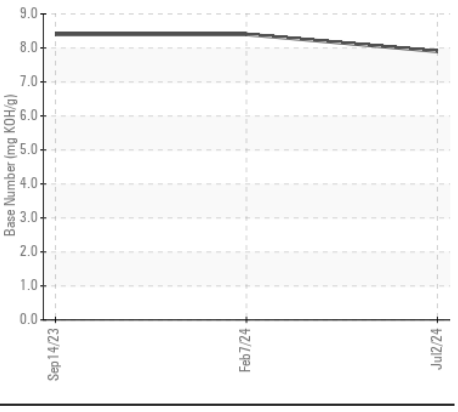
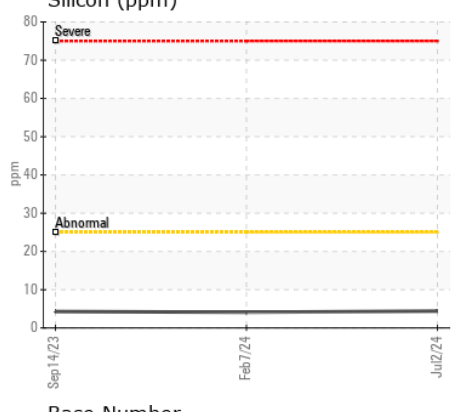
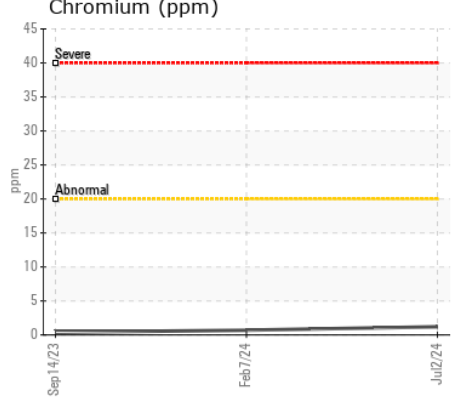
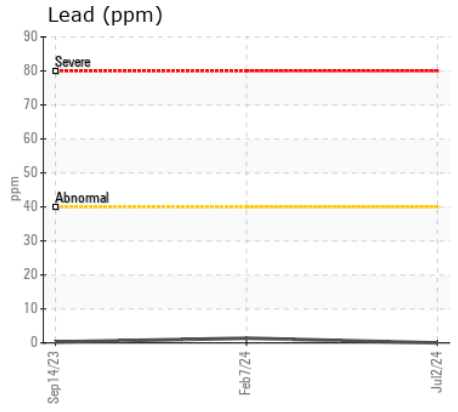
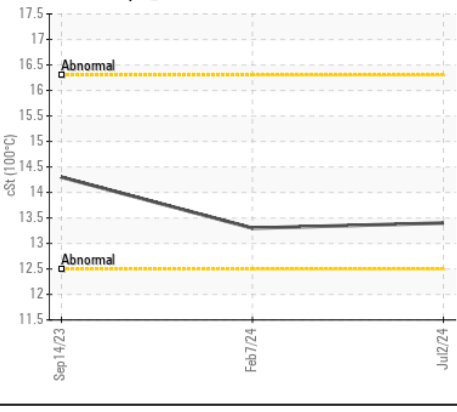
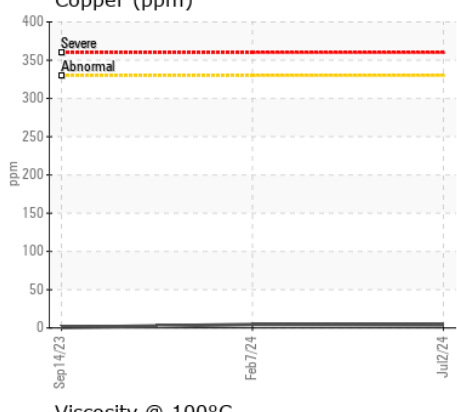
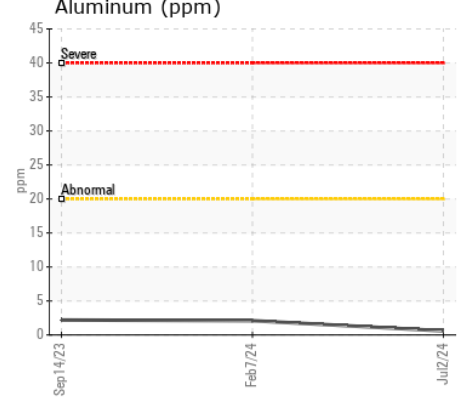
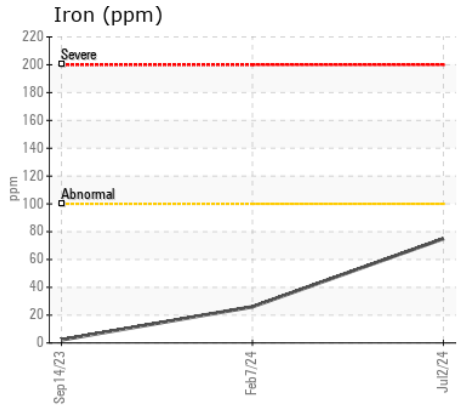
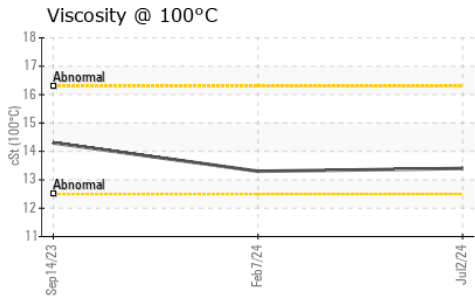
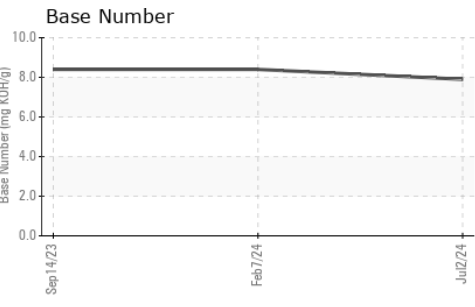
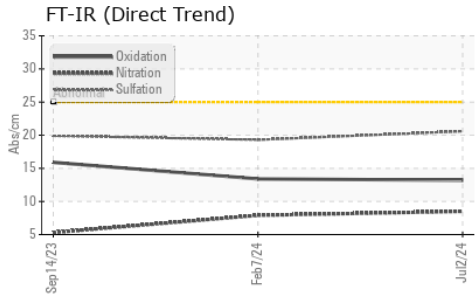
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	11	7
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.1</b>	0.6	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.5</b>	7.9	5.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.6</b>	19.3	19.9
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	>0.2	<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		<b>5</b>	4	3
Boron	ppm	ASTM D5185m		<b>68</b>	50	199
Barium	ppm	ASTM D5185m		<b>0</b>	13	0
Molybdenum	ppm	ASTM D5185m		<b>23</b>	24	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>729</b>	653	18
Calcium	ppm	ASTM D5185m		<b>1283</b>	1145	2174
Phosphorus	ppm	ASTM D5185m		<b>1020</b>	977	985
Zinc	ppm	ASTM D5185m		<b>1169</b>	1056	1131
Sulfur	ppm	ASTM D5185m		<b>3976</b>	3689	3700
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.2</b>	13.4	15.9
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.9</b>	8.4	8.4
Visc @ 100°C	cSt	ASTM D445		<b>13.4</b>	13.3	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LW0009116 **Received** : 16 Jul 2024  
**Lab Number** : 06237537 **Tested** : 17 Jul 2024  
**Unique Number** : 11126371 **Diagnosed** : 17 Jul 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**CHICAGO MACHINERY INC**  
 3142 EAST LINCOLN  
 LYNWOOD, IL  
 US 60411-7728  
 Contact: Mike Korbek  
 mike@chicagomachineryinc.com  
 T: (708)758-2060  
 F:

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)