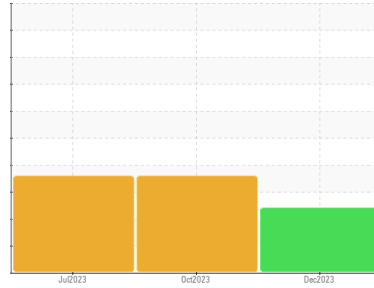


# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**JOHN DEERE 624K 640**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of fuel present in the oil.

### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PCA0096398</b>	PCA0096380	PCA0081000
Sample Date	Client Info		<b>21 Dec 2023</b>	19 Oct 2023	19 Jul 2023
Machine Age	hrs	Client Info	<b>17000</b>	16784	16356
Oil Age	hrs	Client Info	<b>216</b>	429	900
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>SEVERE</b>	SEVERE	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>51	<b>8</b>	5	23
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>&lt;1</b>	1	2
Lead	ppm	ASTM D5185m	>26	<b>0</b>	<1	3
Copper	ppm	ASTM D5185m	>26	<b>0</b>	<1	2
Tin	ppm	ASTM D5185m	>4	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	250	<b>3</b>	2	0
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>45</b>	44	47
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>782</b>	745	785
Calcium	ppm	ASTM D5185m	3000	<b>912</b>	871	895
Phosphorus	ppm	ASTM D5185m	1150	<b>923</b>	870	806
Zinc	ppm	ASTM D5185m	1350	<b>1115</b>	986	1032
Sulfur	ppm	ASTM D5185m	4250	<b>2746</b>	2575	2597

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>22	<b>7</b>	5	10
Sodium	ppm	ASTM D5185m	>158	<b>0</b>	3	8
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Fuel	%	ASTM D3524	>2.1	<b>17.0</b>	14.8	19.0

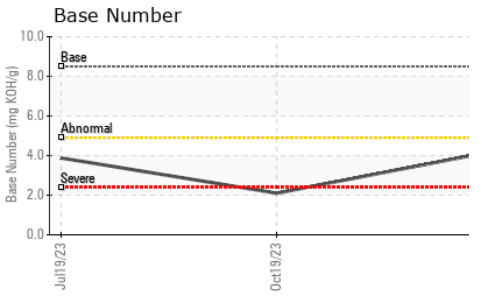
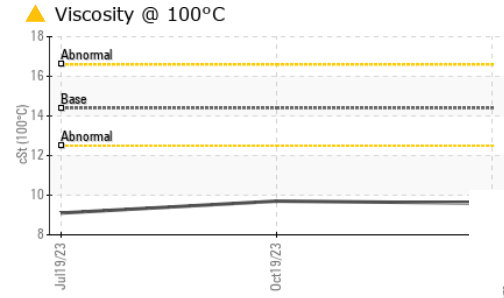
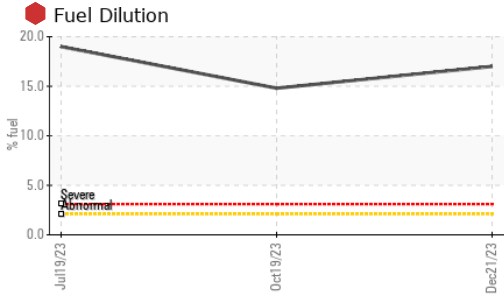
## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	9.2	13.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.6</b>	28.7	41.3

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>27.4</b>	37.1	60.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>4.2</b>	2.1	3.88

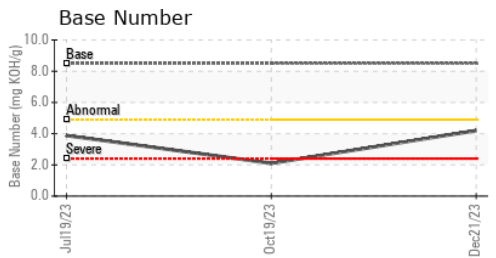
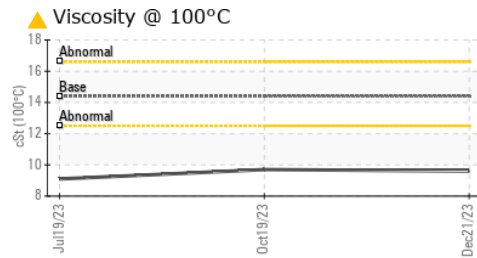
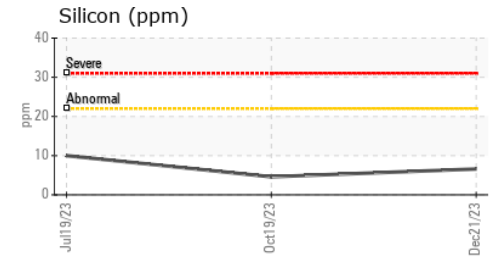
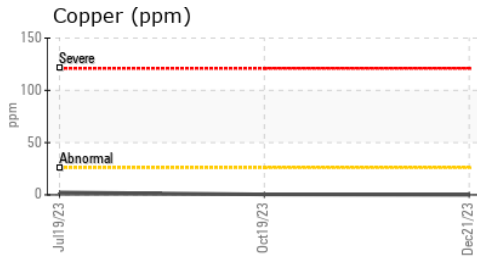
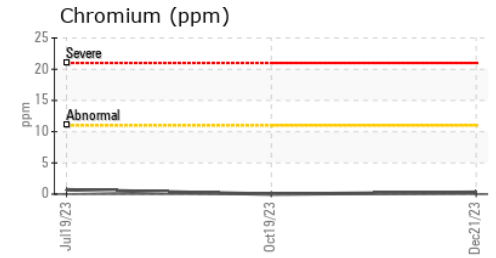
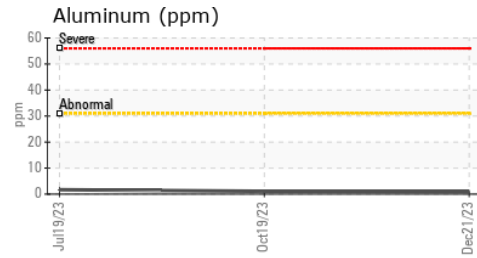
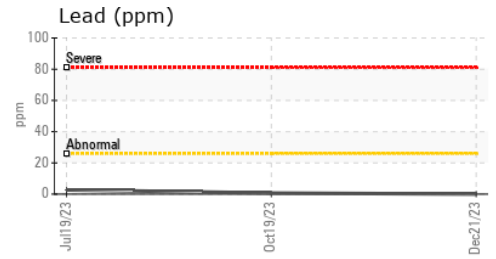
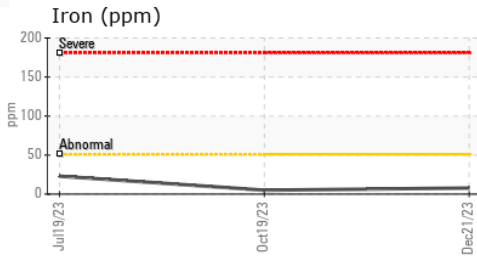
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 9.6	▲ 9.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0096398 **Received** : 28 Dec 2023  
**Lab Number** : 06047177 **Diagnosed** : 02 Jan 2024  
**Unique Number** : 10807785 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel, TBN )

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 US 95361  
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 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)