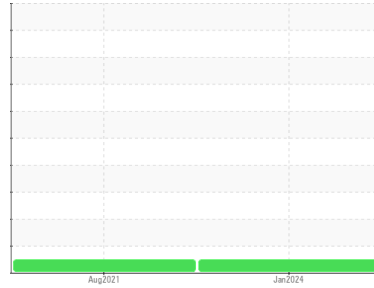


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**

 Machine Id  
**HITACHI HCMACB60J00263688**

 Component  
**Diesel Engine**

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

Resample at the next service interval to monitor.

**Wear**

Metal levels are typical for a new component breaking in.

**Contamination**

There is no indication of any contamination in the oil.

**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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>JR0200115</b>	JR0088378	---
Sample Date	Client Info			<b>16 Jan 2024</b>	10 Aug 2021	---
Machine Age	hrs	Client Info		<b>703</b>	459	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2		<b>NEG</b>	NEG	---
Glycol	WC Method			<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>23</b>	28	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m	>330	<b>4</b>	6	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	---
Antimony	ppm	ASTM D5185m		<b>---</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

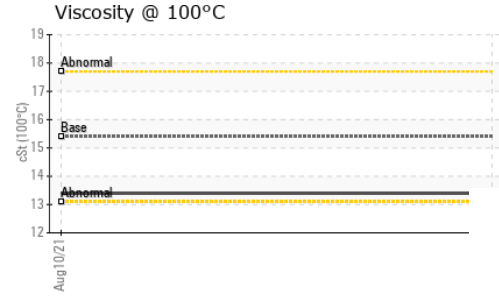
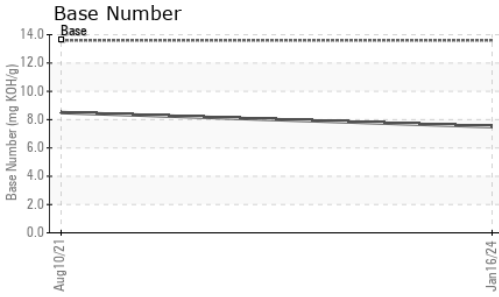
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>263</b>	282	---
Barium	ppm	ASTM D5185m		<b>4</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>262</b>	270	---
Manganese	ppm	ASTM D5185m		<b>0</b>	1	---
Magnesium	ppm	ASTM D5185m		<b>872</b>	745	---
Calcium	ppm	ASTM D5185m		<b>1458</b>	1711	---
Phosphorus	ppm	ASTM D5185m		<b>890</b>	890	---
Zinc	ppm	ASTM D5185m		<b>1156</b>	1139	---
Sulfur	ppm	ASTM D5185m		<b>3438</b>	2631	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>16</b>	23	---
Sodium	ppm	ASTM D5185m		<b>0</b>	6	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.0</b>	10.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.8</b>	22	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.4</b>	17.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.5</b>	8.5	---

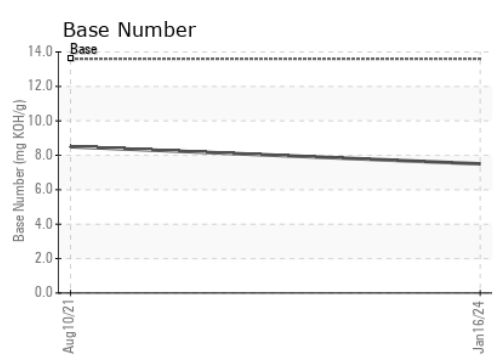
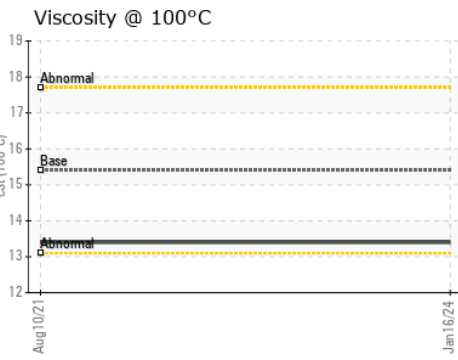
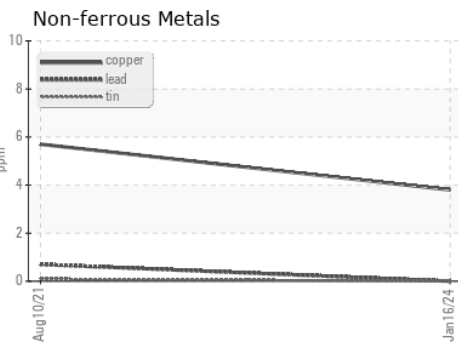
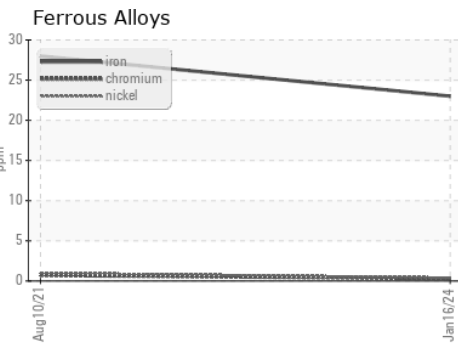
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
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	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.4	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0200115      **Received** : 18 Jan 2024  
**Lab Number** : **06064024**      **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10835406      **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - ASHLAND**  
 11047 LEADBETTER RD  
 ASHLAND, VA  
 US 23005  
 Contact: DAVID ZIEG  
 dzieg@jamesriverequipment.com  
 T: (804)798-6001  
 F: (804)798-0292

Certificate L2367  
 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)