



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

Machine Id  
**EDGE TSR-80 CC-3 (S/N 20TSR8048003)**

Component  
**Diesel Engine**

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

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0196449</b>	JR0160798	---
Sample Date		Client Info		<b>12 Feb 2024</b>	22 Mar 2023	---
Machine Age	hrs	Client Info		<b>1542</b>	998	---
Oil Age	hrs	Client Info		<b>544</b>	512	---
Filter Age	hrs	Client Info		<b>544</b>	512	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>94</b>	77	---
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	5	---
Lead	ppm	ASTM D5185m	>40	<b>3</b>	2	---
Copper	ppm	ASTM D5185m	>330	<b>5</b>	5	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

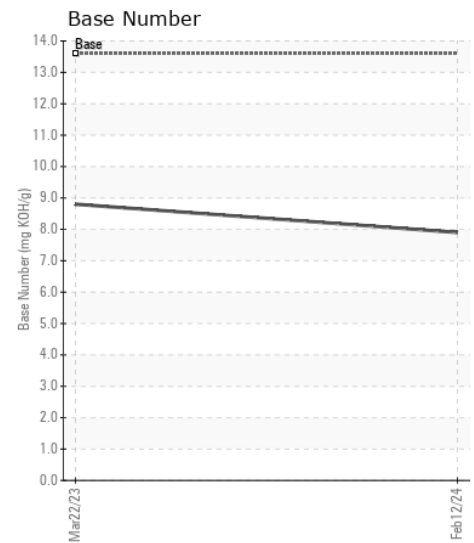
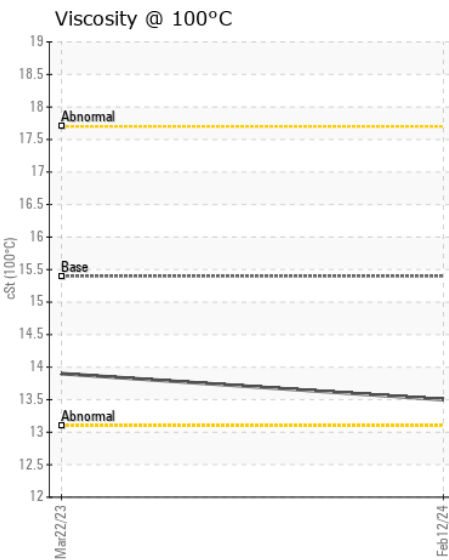
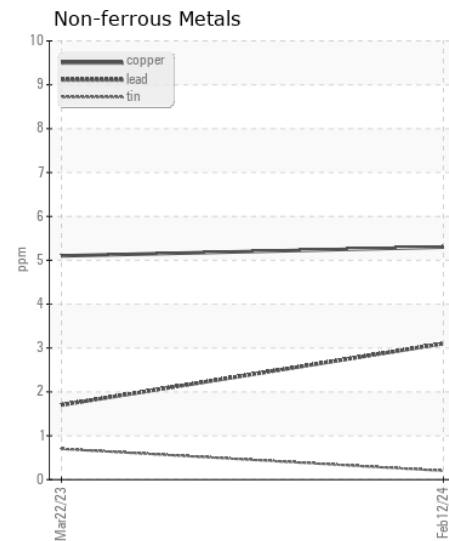
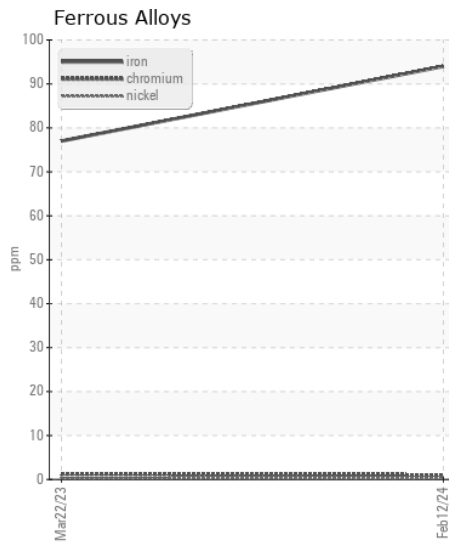
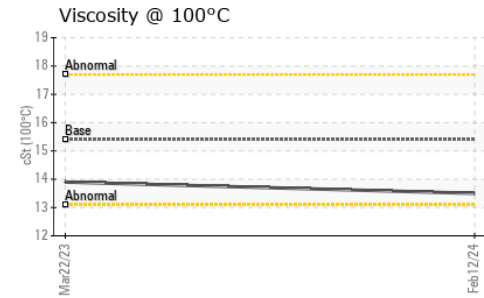
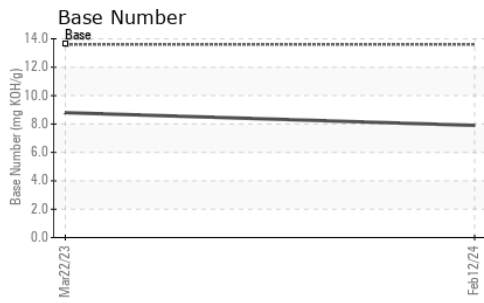
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>21</b>	19	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	---
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	---
Soot %	%	*ASTM D7844	>3	<b>1.2</b>	1.2	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.7</b>	11.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.4</b>	25.5	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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>0</b>	5	---
Boron	ppm	ASTM D5185m		<b>89</b>	107	---
Barium	ppm	ASTM D5185m		<b>13</b>	3	---
Molybdenum	ppm	ASTM D5185m		<b>270</b>	232	---
Manganese	ppm	ASTM D5185m		<b>1</b>	1	---
Magnesium	ppm	ASTM D5185m		<b>838</b>	723	---
Calcium	ppm	ASTM D5185m		<b>1477</b>	1441	---
Phosphorus	ppm	ASTM D5185m		<b>935</b>	818	---
Zinc	ppm	ASTM D5185m		<b>1056</b>	1026	---
Sulfur	ppm	ASTM D5185m		<b>3680</b>	2903	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.9</b>	19.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.9</b>	8.8	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	13.9	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0196449 **Received** : 14 Feb 2024  
**Lab Number** : 06088642 **Tested** : 15 Feb 2024  
**Unique Number** : 10876087 **Diagnosed** : 15 Feb 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**DIVERSIFIED BIO-MASS**  
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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)