



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



Area  
**[W64407]**  
 Machine Id  
**JOHN DEERE 410E 1DW410EBCNF713870**  
 Component  
**Diesel Engine**  
 Fluid  
**{not provided} (11 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. ( Customer Sample Comment: W64407 )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0192741</b>	JR0177309	JR0142008
Sample Date		Client Info		<b>21 Feb 2024</b>	28 Aug 2023	30 Mar 2023
Machine Age	hrs	Client Info		<b>2529</b>	1984	1432
Oil Age	hrs	Client Info		<b>2529</b>	1035	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>11</b>	9	13
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	4	3
Lead	ppm	ASTM D5185m	>26	<b>4</b>	5	5
Copper	ppm	ASTM D5185m	>26	<b>11</b>	13	29
Tin	ppm	ASTM D5185m	>4	<b>2</b>	3	3
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

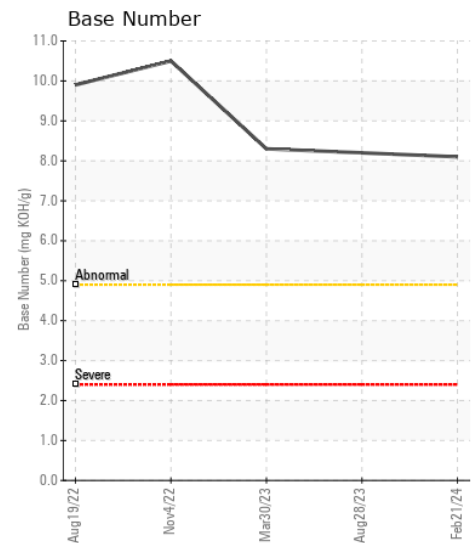
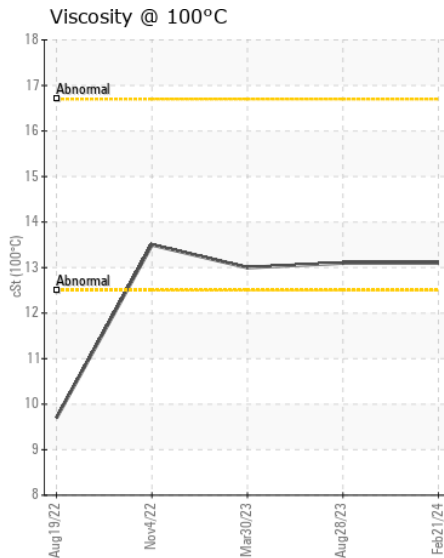
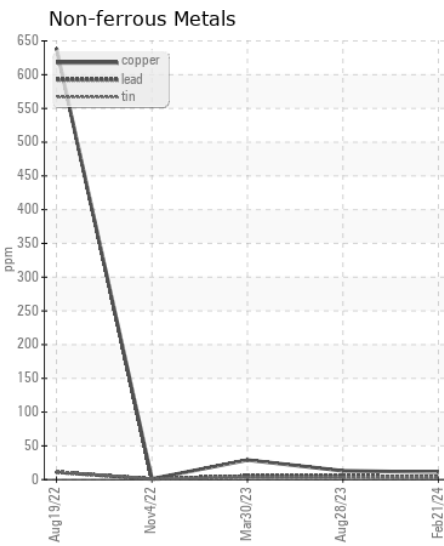
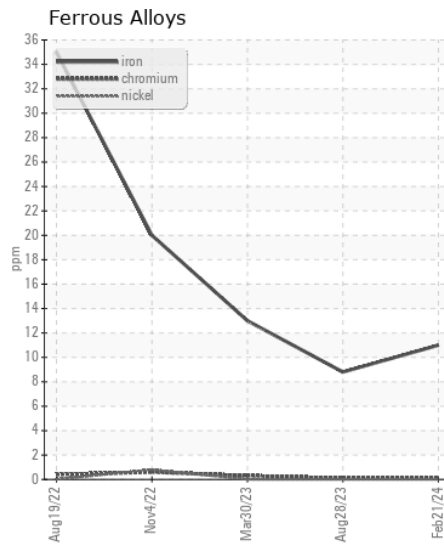
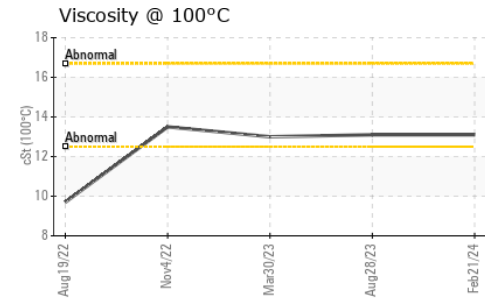
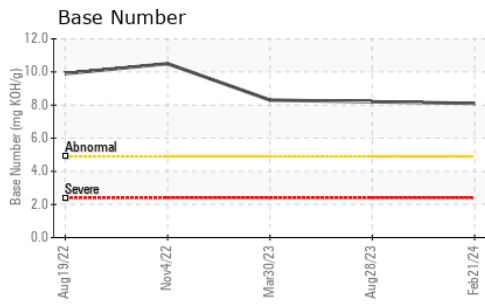
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>6</b>	6	8
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	11
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	8.7	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.3</b>	21.3	22.0
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>4</b>	3	13
Boron	ppm	ASTM D5185m		<b>188</b>	222	227
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>241</b>	245	270
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>845</b>	871	869
Calcium	ppm	ASTM D5185m		<b>1452</b>	1445	1599
Phosphorus	ppm	ASTM D5185m		<b>883</b>	917	988
Zinc	ppm	ASTM D5185m		<b>1038</b>	1128	1194
Sulfur	ppm	ASTM D5185m		<b>3016</b>	3734	3770
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.5</b>	15.5	16.0
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.1</b>	8.2	8.3
Visc @ 100°C	cSt	ASTM D445		<b>13.1</b>	13.1	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0192741 **Received** : 23 Feb 2024  
**Lab Number** : 06098899 **Tested** : 26 Feb 2024  
**Unique Number** : 10897129 **Diagnosed** : 26 Feb 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - CHARLOTTE**  
 9550 STATESVILLE ROAD  
 CHARLOTTE, NC  
 US 28269

Contact: CHARLOTTE SHOP  
 myoung@jamesriverequipment.com

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)

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