



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

Machine Id  
**JOHN DEERE 624L 1DW624LTCKF701433**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (21 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0221038</b>	JR0201184	JR0182459
Sample Date		Client Info		<b>12 Jul 2024</b>	26 Feb 2024	29 Aug 2023
Machine Age	hrs	Client Info		<b>6458</b>	6007	5529
Oil Age	hrs	Client Info		<b>451</b>	478	829
Filter Age	hrs	Client Info		<b>451</b>	478	829
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>11</b>	12	9
Chromium	ppm	ASTM D5185m	>11	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	5	4
Lead	ppm	ASTM D5185m	>26	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>26	<b>&lt;1</b>	1	0
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	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.

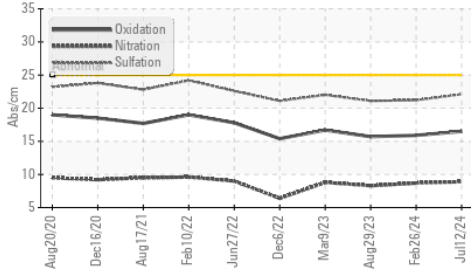
Silicon	ppm	ASTM D5185m	>22	<b>6</b>	8	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	4	3
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	8.7	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.1</b>	21.2	21.1
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

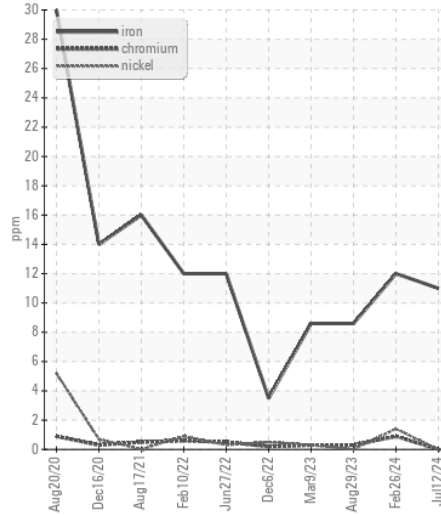
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>4</b>	2	3
Boron	ppm	ASTM D5185m		<b>208</b>	206	247
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	2	0
Molybdenum	ppm	ASTM D5185m		<b>249</b>	244	248
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>829</b>	728	885
Calcium	ppm	ASTM D5185m		<b>1471</b>	1232	1452
Phosphorus	ppm	ASTM D5185m		<b>935</b>	788	919
Zinc	ppm	ASTM D5185m		<b>1068</b>	975	1144
Sulfur	ppm	ASTM D5185m		<b>3464</b>	2907	3787
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.5</b>	15.9	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.4</b>	8.5	8.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.3</b>	13.4	13.4

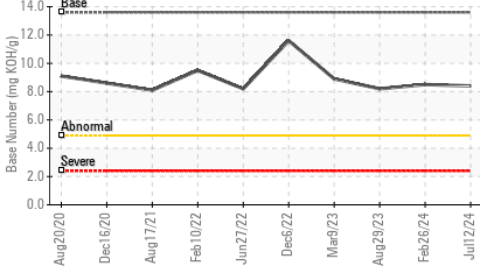
**FT-IR (Direct Trend)**



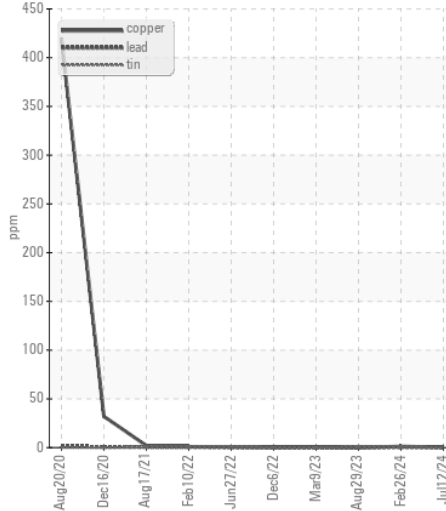
**Ferrous Alloys**



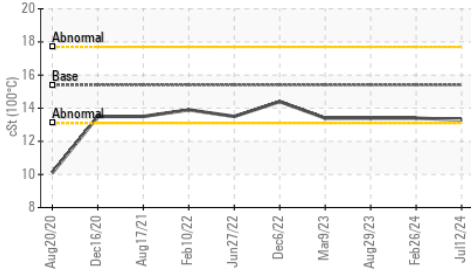
**Base Number**



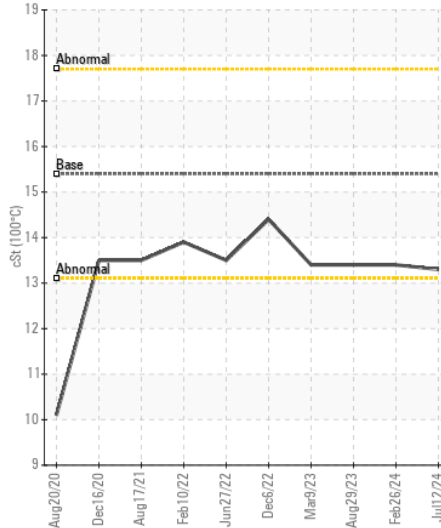
**Non-ferrous Metals**



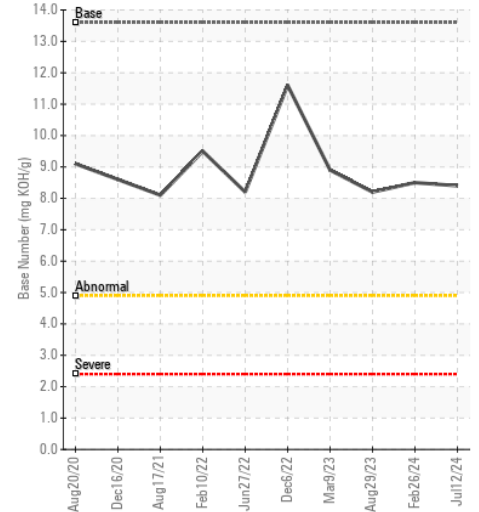
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : JR0221038

**Lab Number** : 06237561

**Unique Number** : 11126395

**Test Package** : CONST ( Additional Tests: TBN )

**Received** : 16 Jul 2024

**Tested** : 17 Jul 2024

**Diagnosed** : 17 Jul 2024 - Wes Davis

**JRE - NEW BERN**

3816 MARTIN LUTHER KING BLVD

NEW BERN, NC

US 28562

Contact: NEW BERN SHOP

nick.etherdridge@jamesriverequipment.com;canastasio@wearcheckusa.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)

T:

F: