



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

Machine Id  
**JOHN DEERE 850L 1T0850LXCNF428355**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (30 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0220755</b>	JR0200980	JR0200917
Sample Date		Client Info		<b>24 Jun 2024</b>	26 Mar 2024	03 Jan 2024
Machine Age	hrs	Client Info		<b>3530</b>	2994	2513
Oil Age	hrs	Client Info		<b>536</b>	481	500
Filter Age	hrs	Client Info		<b>536</b>	481	500
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>30</b>	29	21
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>4</b>	6	7
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>31	<b>6</b>	5	5
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m	>26	<b>2</b>	4	2
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
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.

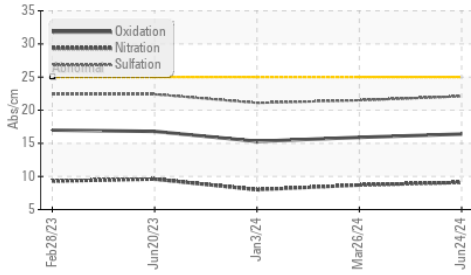
Silicon	ppm	ASTM D5185m	>22	<b>9</b>	10	7
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	8.7	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.1</b>	21.5	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

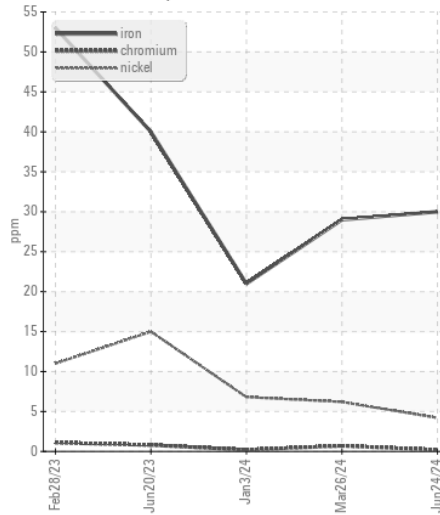
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	<1	1
Boron	ppm	ASTM D5185m		<b>199</b>	255	238
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>262</b>	283	263
Manganese	ppm	ASTM D5185m		<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>888</b>	838	850
Calcium	ppm	ASTM D5185m		<b>1470</b>	1480	1406
Phosphorus	ppm	ASTM D5185m		<b>923</b>	918	946
Zinc	ppm	ASTM D5185m		<b>1127</b>	1103	1121
Sulfur	ppm	ASTM D5185m		<b>3437</b>	3124	3050
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.4</b>	15.9	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.5</b>	9.6	9.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.3	13.6

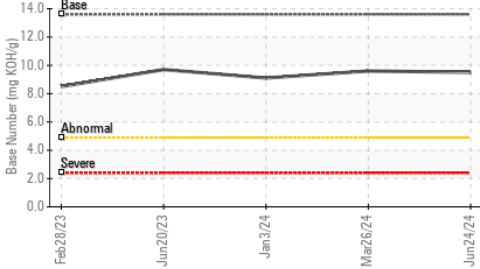
FT-IR (Direct Trend)



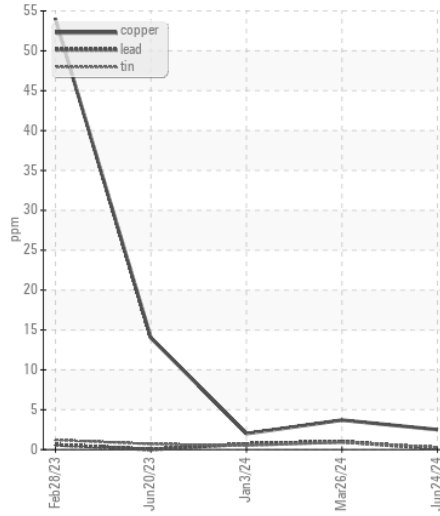
Ferrous Alloys



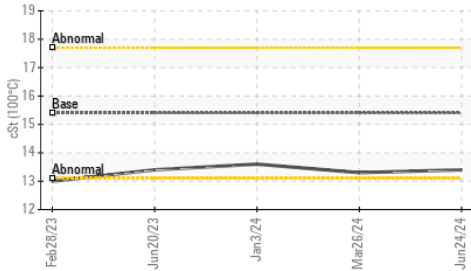
Base Number



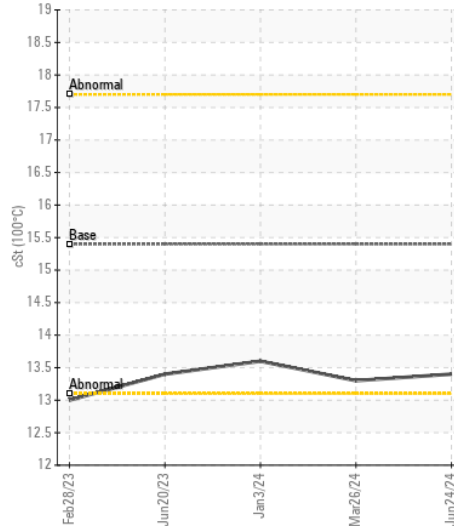
Non-ferrous Metals



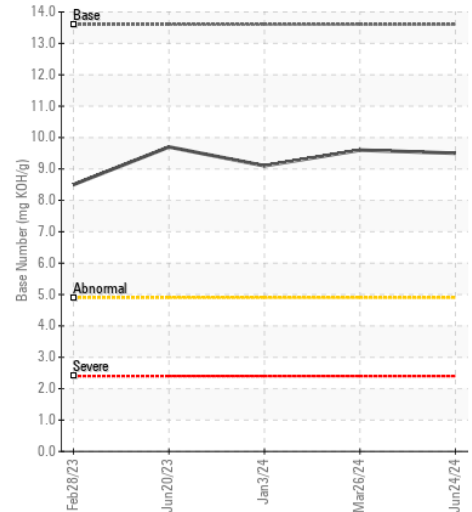
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : JR0220755 Received : 26 Jun 2024  
 Lab Number : 06220815 Tested : 27 Jun 2024  
 Unique Number : 11099012 Diagnosed : 27 Jun 2024 - Wes Davis  
 Test Package : CONST ( Additional Tests: TBN )

**JRE - NEW BERN**  
 3816 MARTIN LUTHER KING BLVD  
 NEW BERN, NC  
 US 28562  
 Contact: NEW BERN SHOP  
 nick.etheridge@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: