



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



Machine Id  
**JOHN DEERE 85D 1FF085DXVCG017018**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (3 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0223064</b>	JR0187249	JR0145389
Sample Date		Client Info		<b>11 Jul 2024</b>	19 Sep 2023	25 Aug 2022
Machine Age	hrs	Client Info		<b>9340</b>	8787	8136
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>20</b>	23	18
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>31	<b>8</b>	7	7
Lead	ppm	ASTM D5185m	>26	<b>1</b>	1	2
Copper	ppm	ASTM D5185m	>26	<b>2</b>	1	1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<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.

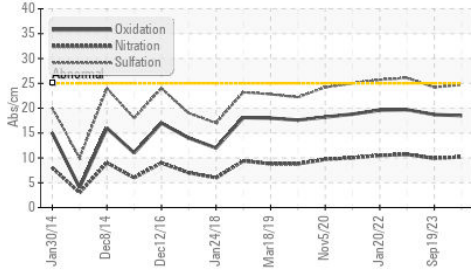
Silicon	ppm	ASTM D5185m	>22	<b>10</b>	10	8
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.2</b>	1.1	1.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.2</b>	9.9	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.7</b>	24.2	26.1
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

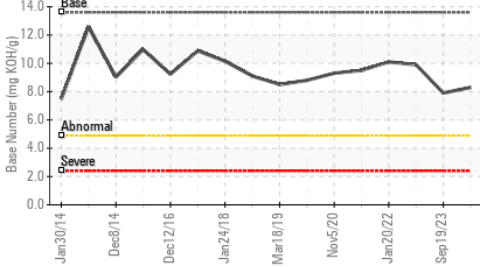
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>1</b>	<1	2
Boron	ppm	ASTM D5185m		<b>156</b>	167	175
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>262</b>	268	244
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>827</b>	792	752
Calcium	ppm	ASTM D5185m		<b>1580</b>	1574	1424
Phosphorus	ppm	ASTM D5185m		<b>982</b>	939	888
Zinc	ppm	ASTM D5185m		<b>1167</b>	1148	1112
Sulfur	ppm	ASTM D5185m		<b>2807</b>	3271	2848
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.5</b>	18.7	19.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.3</b>	7.9	9.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.8</b>	14.7	14.6

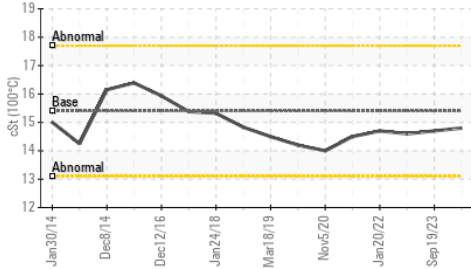
**FT-IR (Direct Trend)**



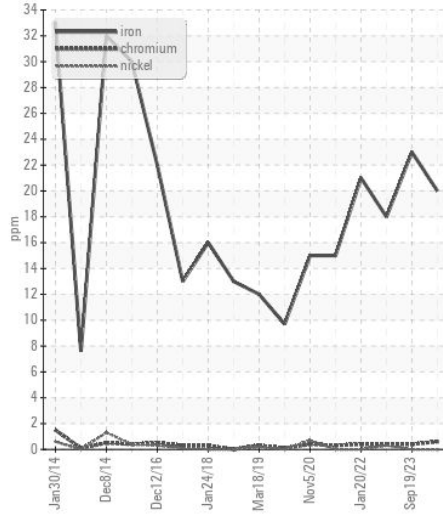
**Base Number**



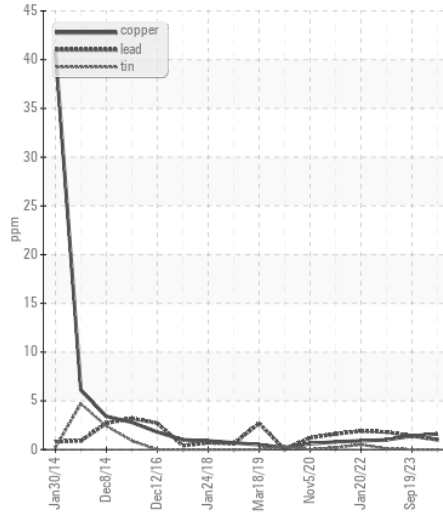
**Viscosity @ 100°C**



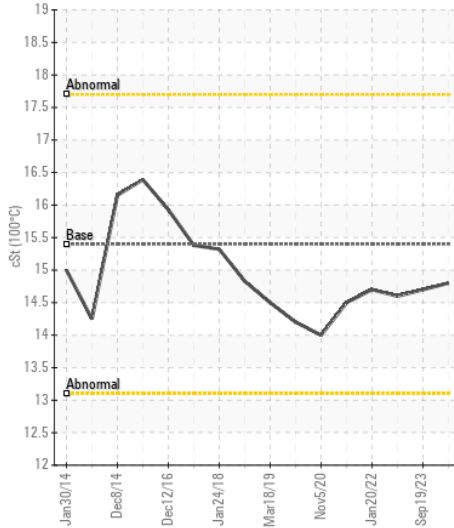
**Ferrous Alloys**



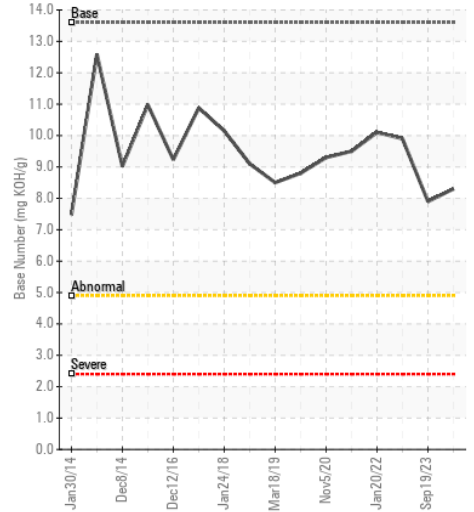
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0223064 **Received** : 12 Jul 2024  
**Lab Number** : 06234627 **Tested** : 15 Jul 2024  
**Unique Number** : 11123461 **Diagnosed** : 15 Jul 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - GREENSBORO**  
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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)