



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

Machine Id  
**JOHN DEERE 624 P 1DW624PAAPLX19586**

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>JR0206260</b>	JR0198493	JR0187972
Sample Date		Client Info		<b>11 Apr 2024</b>	17 Jan 2024	24 Oct 2023
Machine Age	hrs	Client Info		<b>1574</b>	1108	636
Oil Age	hrs	Client Info		<b>466</b>	472	636
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>12</b>	16	38
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	2
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	3	4
Lead	ppm	ASTM D5185m	>26	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>26	<b>7</b>	▲ 62	▲ 612
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.

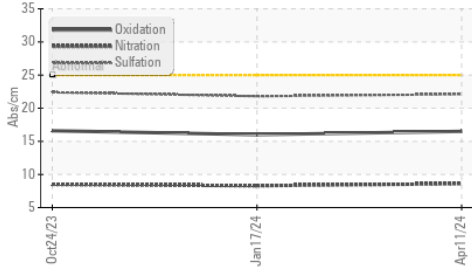
Silicon	ppm	ASTM D5185m	>22	<b>6</b>	8	14
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	0.5
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	8.3	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.1</b>	21.8	22.4
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

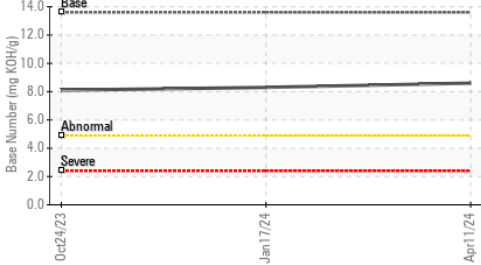
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	2	7
Boron	ppm	ASTM D5185m		<b>269</b>	221	169
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	8
Molybdenum	ppm	ASTM D5185m		<b>272</b>	264	266
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	5
Magnesium	ppm	ASTM D5185m		<b>901</b>	917	770
Calcium	ppm	ASTM D5185m		<b>1486</b>	1463	1253
Phosphorus	ppm	ASTM D5185m		<b>1033</b>	974	906
Zinc	ppm	ASTM D5185m		<b>1176</b>	1190	978
Sulfur	ppm	ASTM D5185m		<b>3717</b>	3230	2407
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.5</b>	16.0	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.6</b>	8.3	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.3</b>	13.1	● 10.1

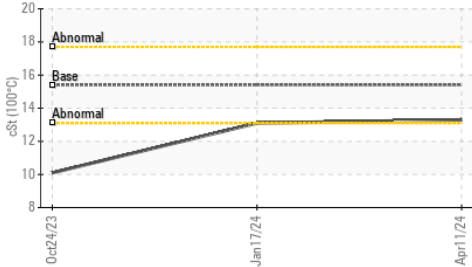
FT-IR (Direct Trend)



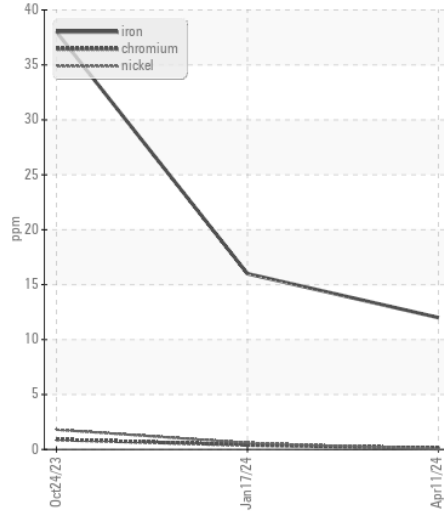
Base Number



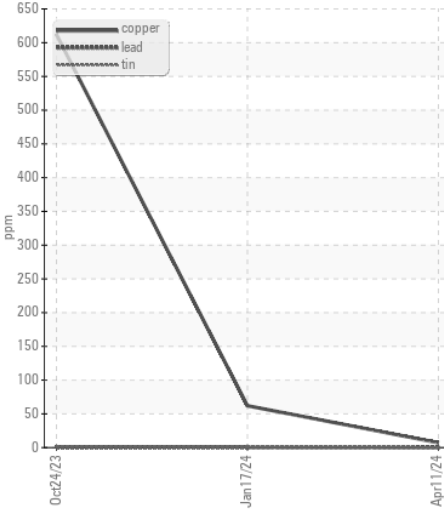
Viscosity @ 100°C



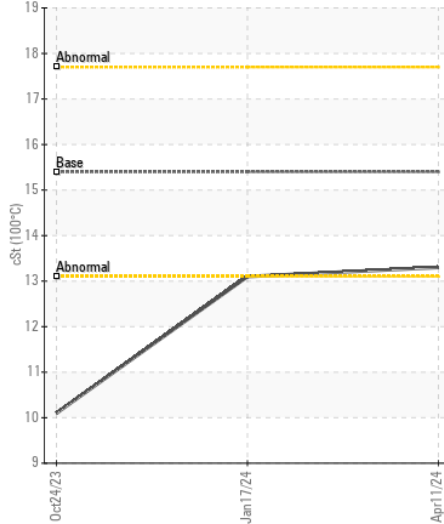
Ferrous Alloys



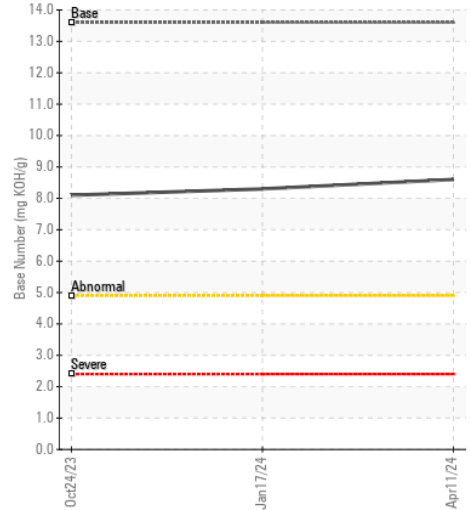
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : JR0206260 Received : 15 Apr 2024  
 Lab Number : 06149287 Tested : 16 Apr 2024  
 Unique Number : 10979365 Diagnosed : 16 Apr 2024 - Wes Davis  
 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)

T: (704)597-0211  
 F: (704)596-6198