



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 220DW 1FF220DWVDD041195
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		JR0201485	JR0175886	JR0118458
Sample Date		Client Info		02 Feb 2024	05 Jun 2023	11 Mar 2022
Machine Age	hrs	Client Info		3446	3020	2803
Oil Age	hrs	Client Info		426	255	0
Filter Age	hrs	Client Info		426	255	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	1	3	6
Chromium	ppm	ASTM D5185m	>11	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>31	5	1	4
Lead	ppm	ASTM D5185m	>26	2	0	<1
Copper	ppm	ASTM D5185m	>26	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

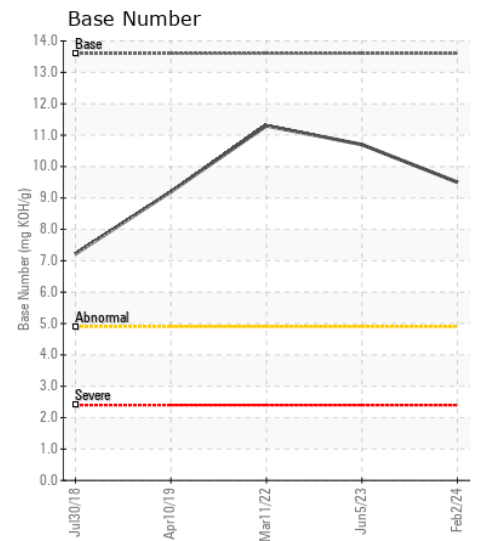
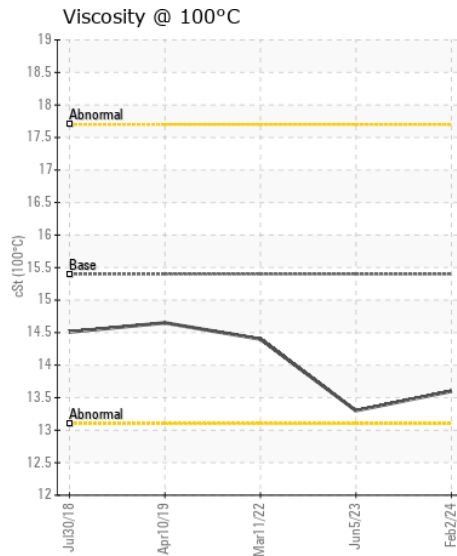
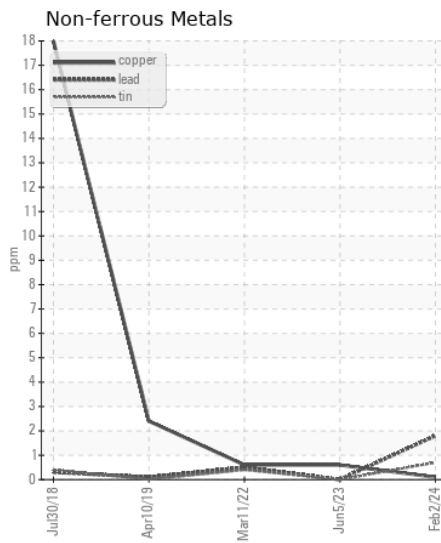
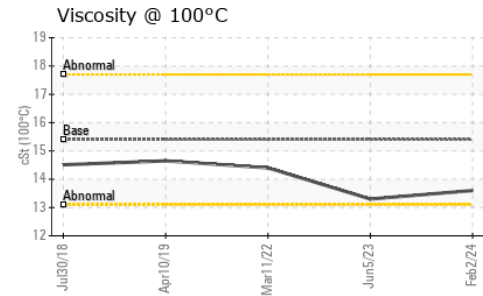
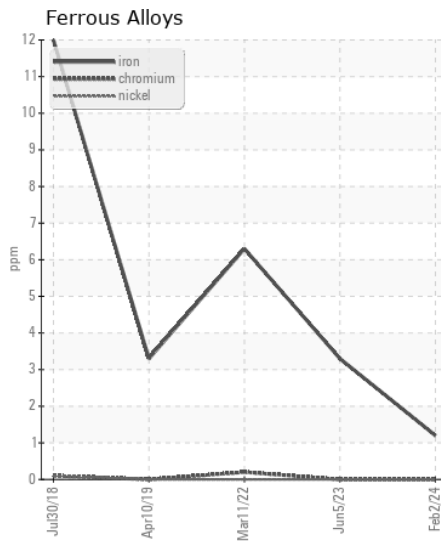
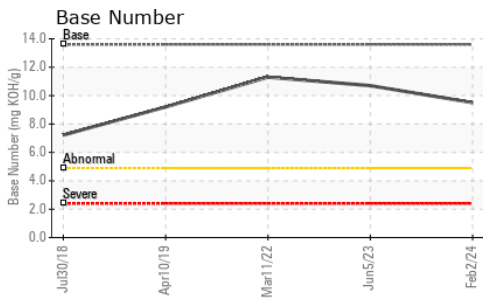
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	3	6	8
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.3	4.9	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	21.5	21.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	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	1	2	0
Boron	ppm	ASTM D5185m		219	85	260
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		218	58	238
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		731	532	798
Calcium	ppm	ASTM D5185m		1314	1682	1464
Phosphorus	ppm	ASTM D5185m		790	732	862
Zinc	ppm	ASTM D5185m		967	909	970
Sulfur	ppm	ASTM D5185m		2670	3136	2556
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	18.2	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.5	10.7	11.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.3	14.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0201485 **Received** : 09 Feb 2024
Lab Number : 06084657 **Tested** : 12 Feb 2024
Unique Number : 10872102 **Diagnosed** : 12 Feb 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

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 US 28806
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Certificate L2367
 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)