



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 220DW 1FF220DWHDD041203
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0212384	---	---
Sample Date		Client Info		22 Apr 2024	---	---
Machine Age	hrs	Client Info		8874	---	---
Oil Age	hrs	Client Info		8874	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	46	---	---
Chromium	ppm	ASTM D5185m	>11	1	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	20	---	---
Lead	ppm	ASTM D5185m	>26	11	---	---
Copper	ppm	ASTM D5185m	>26	3	---	---
Tin	ppm	ASTM D5185m	>4	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

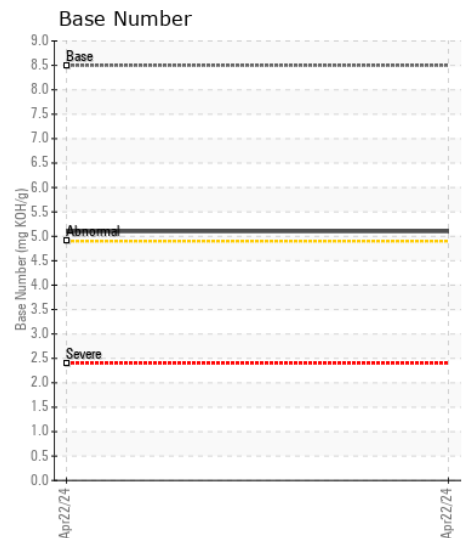
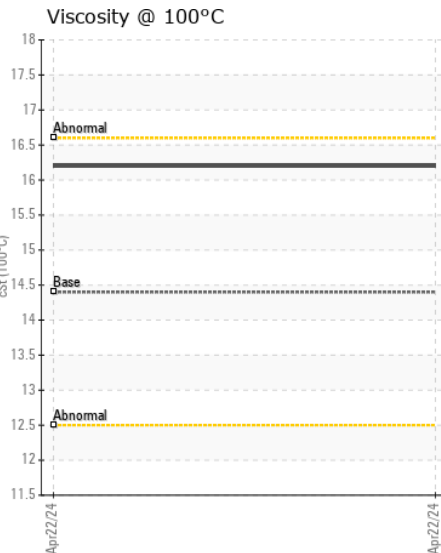
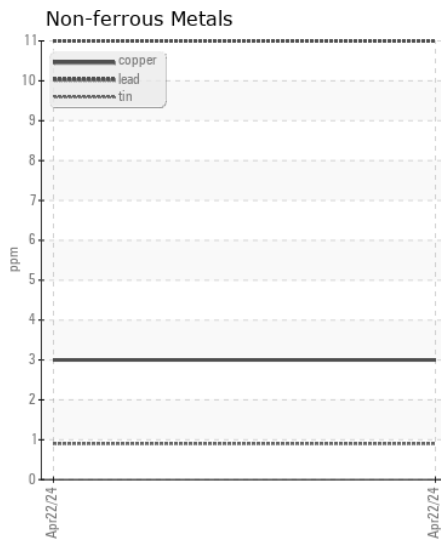
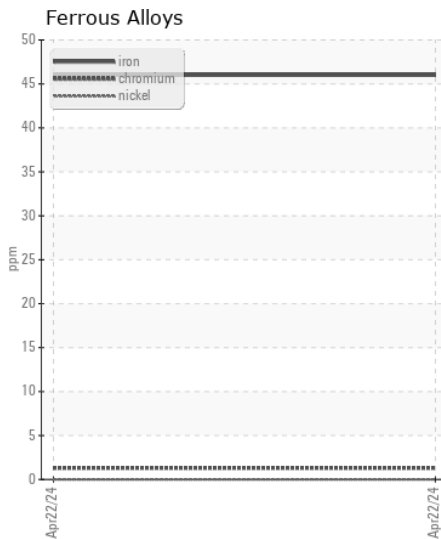
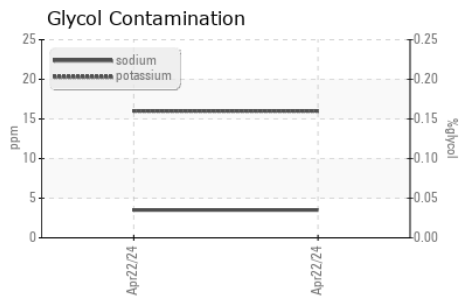
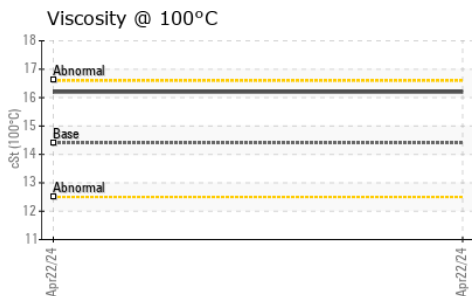
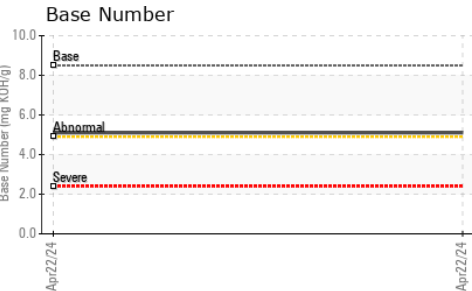
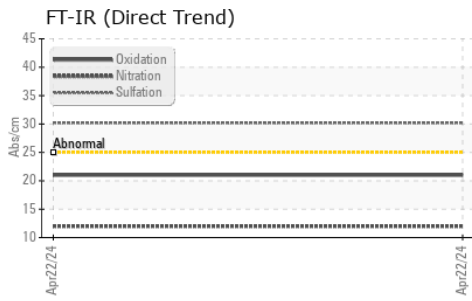
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	7	---	---
Potassium	ppm	ASTM D5185m	>20	16	---	---
Fuel		WC Method	>2.1	<1.0	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	2.8	---	---
Nitration	Abs/cm	*ASTM D7624	>20	12.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.2	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.21	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	>216	4	---	---
Boron	ppm	ASTM D5185m	250	48	---	---
Barium	ppm	ASTM D5185m	10	<1	---	---
Molybdenum	ppm	ASTM D5185m	100	4	---	---
Manganese	ppm	ASTM D5185m		1	---	---
Magnesium	ppm	ASTM D5185m	450	37	---	---
Calcium	ppm	ASTM D5185m	3000	2378	---	---
Phosphorus	ppm	ASTM D5185m	1150	988	---	---
Zinc	ppm	ASTM D5185m	1350	1335	---	---
Sulfur	ppm	ASTM D5185m	4250	3982	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.1	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	16.2	---	---



Certificate L2367

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

Sample No. : JR0212384

Lab Number : 06157422

Unique Number : 10992845

Test Package : CONST (Additional Tests: Glycol, TBN)

Received : 23 Apr 2024

Tested : 25 Apr 2024

Diagnosed : 25 Apr 2024 - Sean Felton

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)

JRE - GARNER

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