



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Area

[W8542]

Machine Id

JOHN DEERE 470G 1FF470GXEMF236612

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (12 GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: W8542)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0197006	JR0174248	JR0127396
Sample Date		Client Info		22 Feb 2024	29 May 2023	07 Aug 2022
Machine Age	hrs	Client Info		3260	2803	2343
Oil Age	hrs	Client Info		500	0	0
Filter Age	hrs	Client Info		500	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				ABNORMAL	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	13	18	48
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	5	6	5
Lead	ppm	ASTM D5185m	>26	2	4	19
Copper	ppm	ASTM D5185m	>26	12	25	15
Tin	ppm	ASTM D5185m	>4	<1	3	4
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

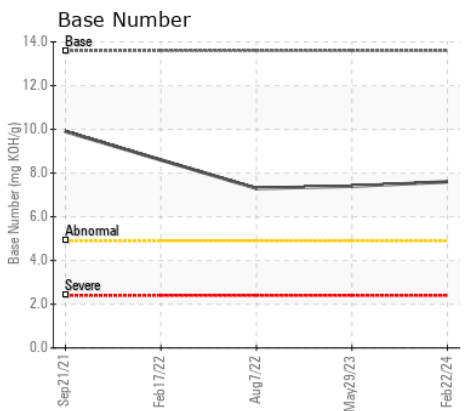
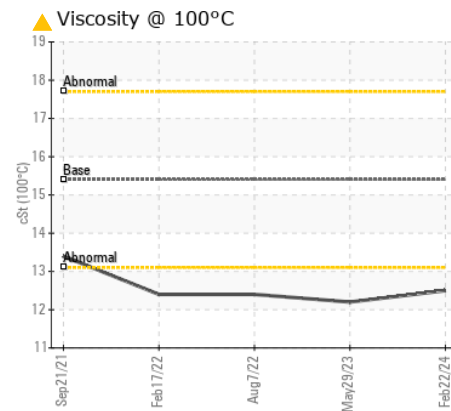
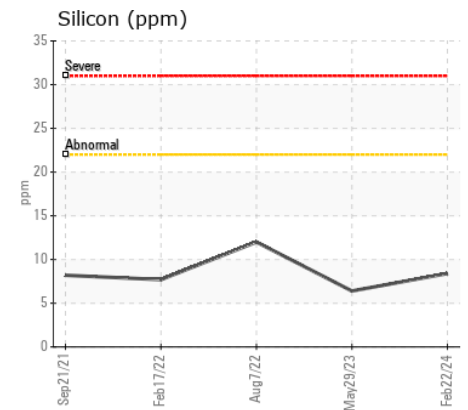
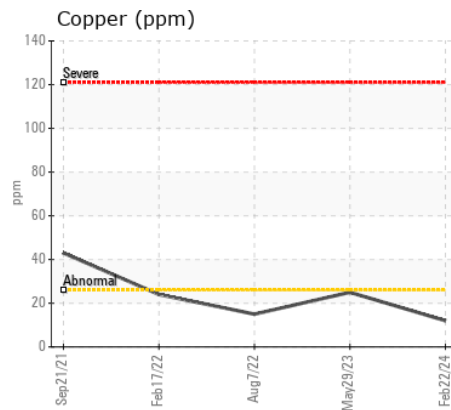
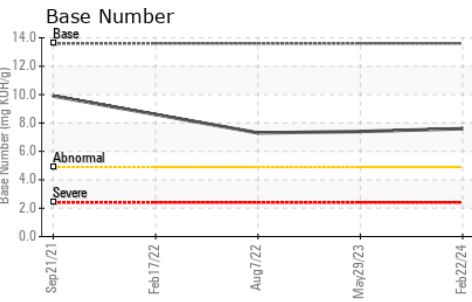
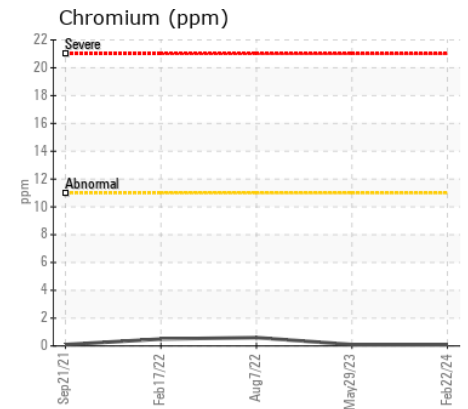
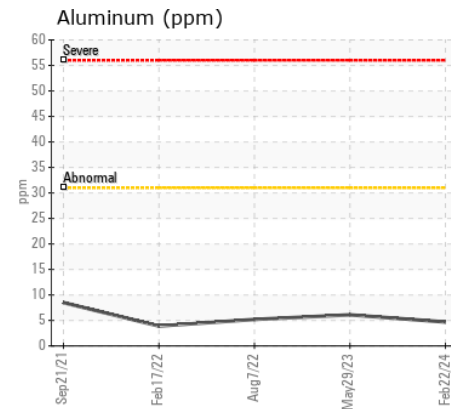
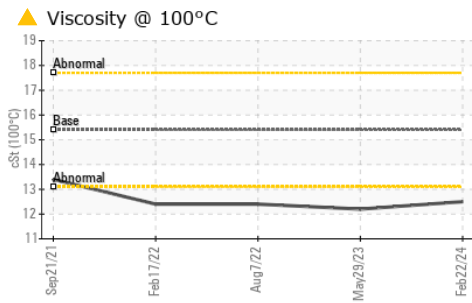
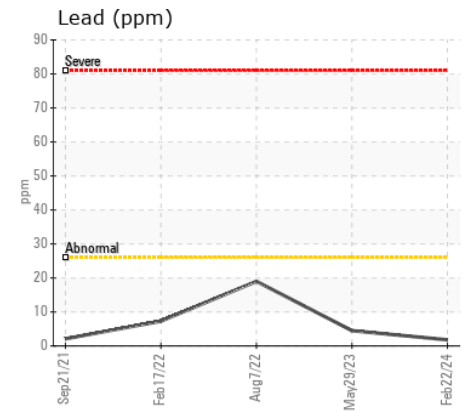
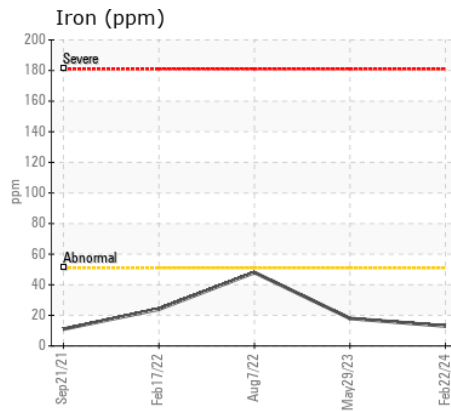
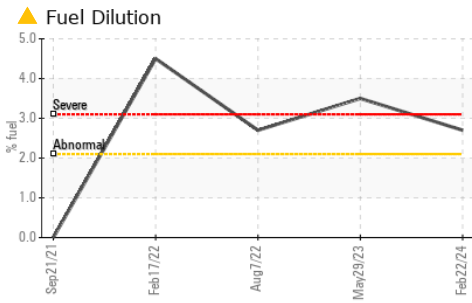
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>22	8	6	12
Potassium	ppm	ASTM D5185m	>20	7	13	6
Fuel	%	ASTM D3524	>2.1	▲ 2.7	3.5	▲ 2.7
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.9
Nitration	Abs/cm	*ASTM D7624	>20	9.4	9.8	13.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	24.2	31.2
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>31	<1	1	6
Boron	ppm	ASTM D5185m		162	154	50
Barium	ppm	ASTM D5185m		9	0	0
Molybdenum	ppm	ASTM D5185m		242	247	218
Manganese	ppm	ASTM D5185m		0	<1	2
Magnesium	ppm	ASTM D5185m		707	713	648
Calcium	ppm	ASTM D5185m		1203	1555	1636
Phosphorus	ppm	ASTM D5185m		810	853	898
Zinc	ppm	ASTM D5185m		923	1050	1082
Sulfur	ppm	ASTM D5185m		2862	3425	3092
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.0	18.4	27.0
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.6	7.4	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.5	▲ 12.2	▲ 12.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0197006 **Received** : 26 Feb 2024
Lab Number : 06099975 **Tested** : 27 Feb 2024
Unique Number : 10898205 **Diagnosed** : 28 Feb 2024 - Jonathan Hester
Test Package : MOBCE (Additional Tests: PercentFuel, TBN)

JRE - HOPE MILLS/FAYETTEVILLE
 5039 HWY 301 SOUTH
 HOPE MILLS, NC
 US 28348
 Contact: FAYETTEVILLE SHOP
 stephen.mullis@jamesriverequipment.com; panastasio@wearcheck.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)

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F: