



Area
[W68226]

Machine Id
JOHN DEERE 470 P 1FF470PAPPF000353

Component
Diesel Engine

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

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: W68226)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0220076	JR0206400	JR0188522
Sample Date		Client Info		08 Jul 2024	25 Mar 2024	11 Dec 2023
Machine Age	hrs	Client Info		1553	1015	560
Oil Age	hrs	Client Info		538	455	560
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ATTENTION	ABNORMAL

WEAR

Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>51	26	24	43
Chromium	ppm	ASTM D5185m	>11	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	7	4	8
Lead	ppm	ASTM D5185m	>26	▲ 84	23	18
Copper	ppm	ASTM D5185m	>26	▲ 40	▲ 73	▲ 371
Tin	ppm	ASTM D5185m	>4	5	5	12
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

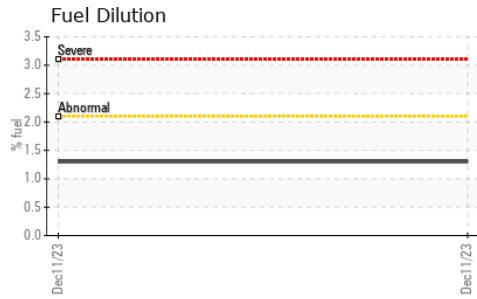
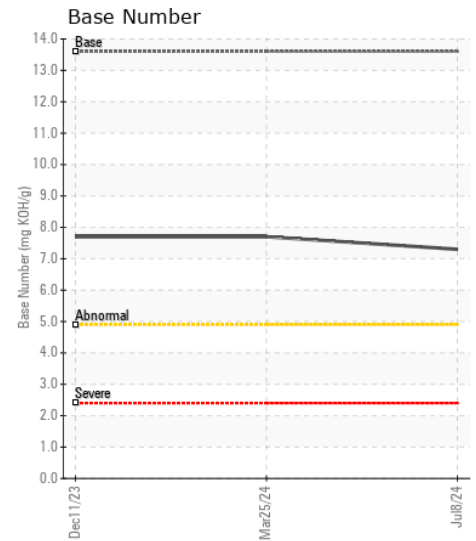
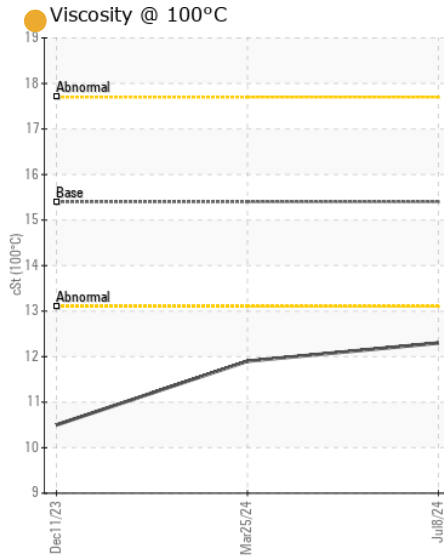
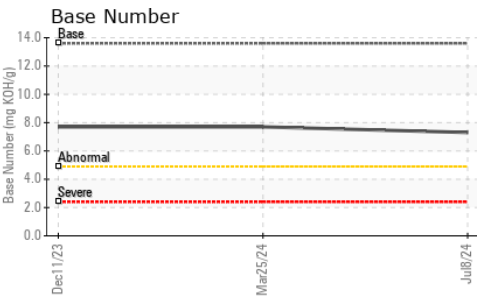
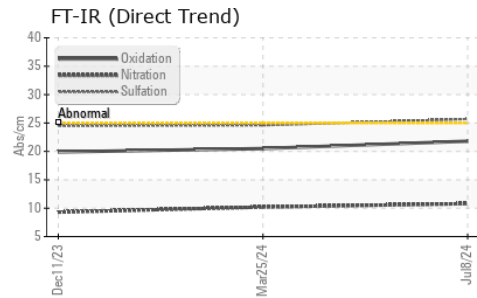
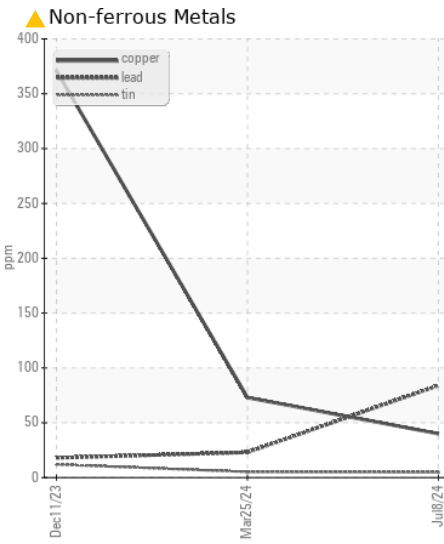
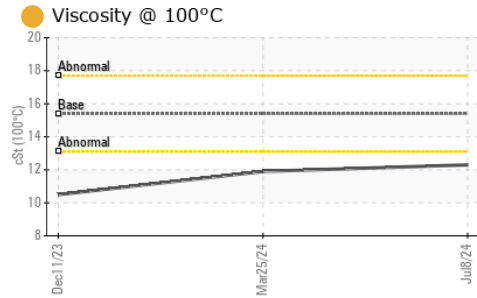
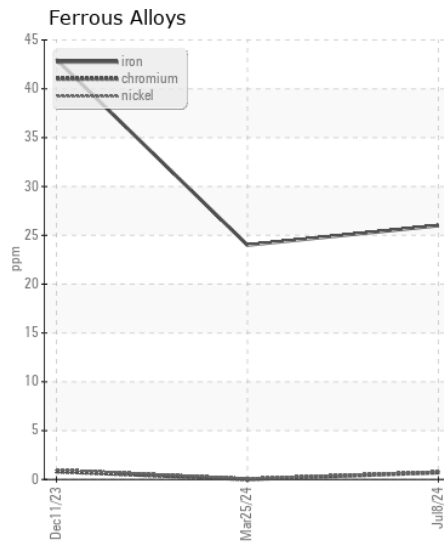
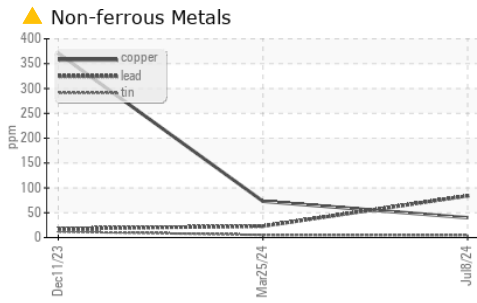
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	11	9	18
Potassium	ppm	ASTM D5185m	>20	9	5	25
Fuel	%	ASTM D3524	>2.1	<1.0	<1.0	1.3
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	10.8	10.2	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.7	24.6	24.5
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>31	6	5	9
Boron	ppm	ASTM D5185m		51	86	143
Barium	ppm	ASTM D5185m		0	<1	14
Molybdenum	ppm	ASTM D5185m		249	234	234
Manganese	ppm	ASTM D5185m		1	2	8
Magnesium	ppm	ASTM D5185m		790	799	756
Calcium	ppm	ASTM D5185m		1399	1460	1441
Phosphorus	ppm	ASTM D5185m		893	860	896
Zinc	ppm	ASTM D5185m		1086	1058	1111
Sulfur	ppm	ASTM D5185m		2756	3055	2771
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	20.5	19.9
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.3	7.7	7.7
Visc @ 100°C	cSt	ASTM D445	15.4	● 12.3	● 11.9	10.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0220076 **Received** : 10 Jul 2024
Lab Number : 06232058 **Tested** : 11 Jul 2024
Unique Number : 11115551 **Diagnosed** : 11 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

CARLTON'S BACKHOE
 9550 STATESVILLE ROAD
 CHARLOTTE, NC
 US 28269
 Contact: LEO

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)547-0211

F: