

## JOHN DEERE 350P 1FF350PATPF000479 Component Diesel Engine

## JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (7 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		JR0214109	JR0202529	JR0183100
	Sample Date		Client Info		29 May 2024	27 Feb 2024	03 Jan 2024
	Machine Age	hrs	Client Info		1549	1028	1027
	Oil Age	hrs	Client Info		521	1	510
	Filter Age	hrs	Client Info		521	0	510
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	ABNORMAL
WEAR	Iron	ppm	ASTM D5185m	>51	24	34	28
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>5	4	13	7
	Titanium	ppm	ASTM D5185m		<1	0	0
	Silver	ppm	ASTM D5185m	>3	<1	<1	<1
	Aluminum	ppm	ASTM D5185m	>31	3	3	4
	Lead	ppm	ASTM D5185m		1	2	2
	Copper	ppm	ASTM D5185m	>26	9	27	▲ 32
	Tin	ppm	ASTM D5185m	>4	<1	1	2
	Vanadium	ppm	ASTM D5185m		<1	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>22	8	8	8
	Potassium	ppm	ASTM D5185m		2	1	<1
There is no indication of any contamination in the oil.	Fuel	pp		>2.1	- <1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.4	0.3	0.3
	Nitration	Abs/cm	*ASTM D7624	>20	9.1	8.8	8.7
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	22.5	22.9
	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	Sodium	ppm	ASTM D5185m	>31	3	2	2
	Boron	ppm	ASTM D5185m		155	186	170
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	<1
	Molybdenum	ppm	ASTM D5185m		218	259	242
	Manganese	ppm	ASTM D5185m		<1	1	<1
	Magnesium	ppm	ASTM D5185m		701	988	806
	Calcium	ppm	ASTM D5185m		1287	1678	1397
	Phosphorus	ppm	ASTM D5185m		760	938	897
	Zinc	ppm	ASTM D5185m		900	1287	1031
	Sulfur	ppm	ASTM D5185m		2699	3303	2702
	Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	17.5	17.7
	Base Number (BN)				8.0	7.9	8.0
							0.0

Visc @ 100°C cSt

ASTM D445 15.4

13.3

13.1

13.4



