

JOHN DEERE 5090M 1LV5090MJKK401336

Diesel Engine

Area

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

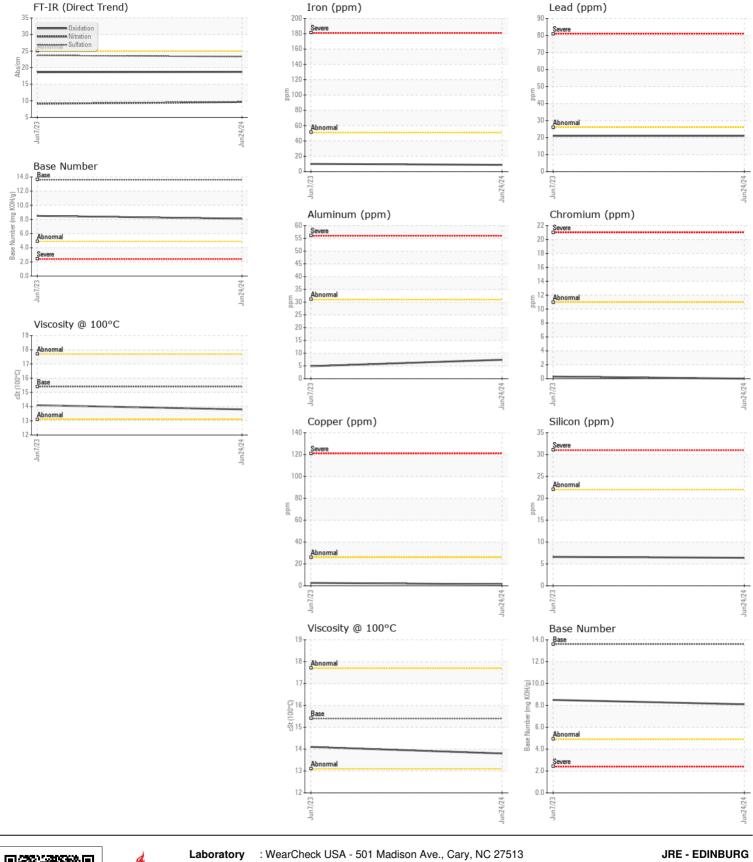
	GAL)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		JR0196779	JR0170205	
	Sample Date		Client Info		24 Jun 2024	07 Jun 2023	
	Machine Age	hrs	Client Info		2567	2167	
	Oil Age	hrs	Client Info		405	0	
	Filter Age	hrs	Client Info		405	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>51	9	10	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>11	0	<1	
	Nickel	ppm	ASTM D5185m	>5	<1	<1	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m	>31	7	5	
	Lead	ppm	ASTM D5185m	>26	21	21	
	Copper	ppm	ASTM D5185m	>26	1	3	
	Tin	ppm	ASTM D5185m	>4	<1	1	
	Vanadium	ppm	ASTM D5185m		<1	0	
	White Metal	scalar	*Visual	NONE	NONE	LIGHT	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>22	6	7	
	Potassium	ppm	ASTM D5185m		12	10	
There is no indication of any contamination in the oil.	Fuel	1-1-	WC Method	>2.1	<1.0	<1.0	
	Water		WC Method	>0.21	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.1	0.1	
	Nitration	Abs/cm	*ASTM D7624	>20	9.6	9.1	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	23.7	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>31	2	1	
	Boron	ppm	ASTM D5185m		186	124	
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	
	Molybdenum	ppm	ASTM D5185m		253	211	
	Manganese	ppm	ASTM D5185m		<1	<1	
	Magnesium	ppm	ASTM D5185m		914	710	
	Calcium	ppm	ASTM D5185m		1549	1426	
	Phosphorus	ppm	ASTM D5185m		967	905	
	Zinc	ppm	ASTM D5185m		1175	1114	
	Sulfur	ppm	ASTM D5185m		3781	3278	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	18.7	18.6	
	Base Number (BN)		ASTM D2896	13.6	8.1	8.5	

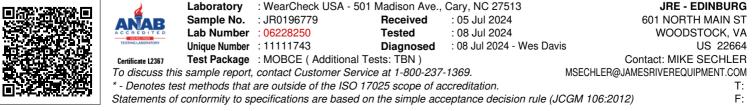
Visc @ 100°C cSt

ASTM D445 15.4

14.1

13.8





Contact/Location: MIKE SECHLER - JAMEDI Page 2 of 2