

## Area Store 9 - Marietta [ro#123255] Machine Id JOHN DEERE 260E 1DW260ETEJF691847 Component

## Component Diesel Engine

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

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		LEC0026684	LEC0016300	LEC0000892
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Date		Client Info		10 Dec 2021	02 Nov 2020	15 Jun 2019
	Machine Age	hrs	Client Info		1442	827	408
	Oil Age	hrs	Client Info		615	419	408
	Filter Age	hrs	Client Info		615	419	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>51	<b>7</b> 0	73	35
	Chromium	ppm	ASTM D5185m	>11	2	2	<1
Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.	Nickel	ppm	ASTM D5185m		<1	3	3
	Titanium	ppm	ASTM D5185m		<1	<1	<1
	Silver	ppm	ASTM D5185m		0	0	<1
	Aluminum	ppm	ASTM D5185m	>31	5	7	7
	Lead	ppm	ASTM D5185m	>26	<1	0	1
	Copper	ppm	ASTM D5185m	>26	3	6	23
	Tin	ppm	ASTM D5185m	>4	<1	0	1
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>22	7	9	8
	Potassium	ppm	ASTM D5185m	>20	0	15	23
There is no indication of any contamination in the oil.	Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
	Water		WC Method	>0.21	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.4	0.3	0.2
	Nitration	Abs/cm	*ASTM D7624	>20	8.8	7.7	7.6
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	21.6	21
	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	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
	Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	NEG
LUID CONDITION	Sodium	ppm	ASTM D5185m	>31	2	3	8
	Boron	ppm	ASTM D5185m		240	237	211
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		262	261	230
	Manganese	ppm	ASTM D5185m		1	1	1
	Magnesium	ppm	ASTM D5185m		854	891	798
	Calcium	ppm	ASTM D5185m		1466	1502	1389
	Phosphorus	ppm	ASTM D5185m		868	950	866
	Zinc	ppm	ASTM D5185m		1000	1050	994
	Sulfur	ppm	ASTM D5185m		2576	2690	2476

Oxidation

Visc @ 100°C cSt

16.2

10

12.9

16.8

9.3

13.2

Abs/.1mm \*ASTM D7414 >25

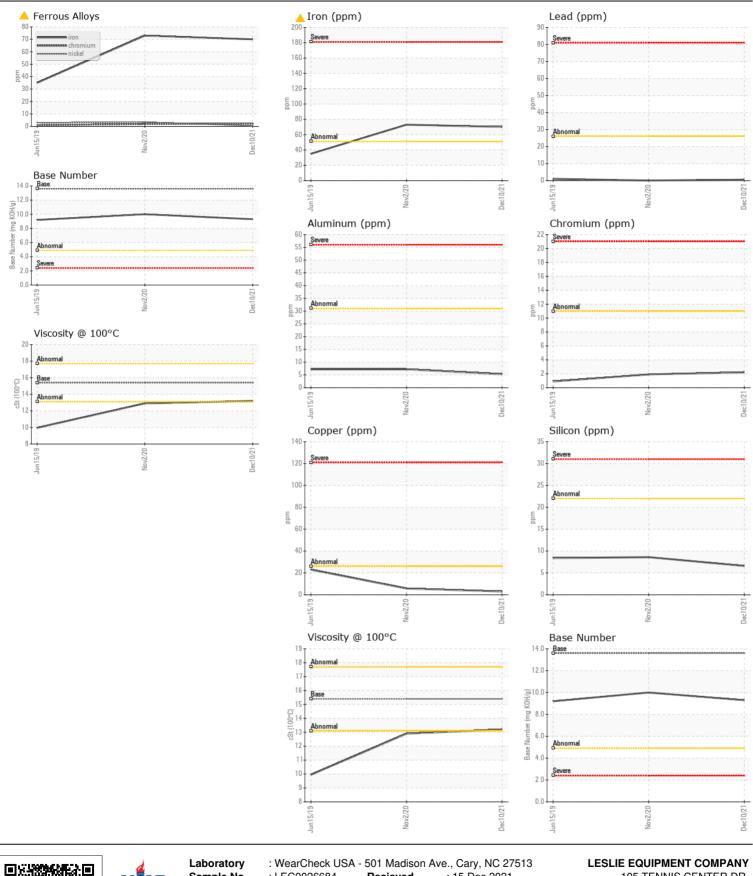
ASTM D445 15.4

Base Number (BN) mg KOH/g ASTM D2896 13.6

16

9.95

9.2



Sample No. : LEC0026684 Recieved : 15 Dec 2021 105 TENNIS CENTER DR. Lab Number : 05423580 MARIETTA, OH Diagnosed : 16 Dec 2021 Unique Number : 977771 Diagnostician : Don Baldridge US 45750-9765 Test Package : MOBCE (Additional Tests: TBN) Contact: LEANNE KENDALL Certificate L2367 KendalLeanne@lec1.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. T: F: (740)373-5570 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Submitted By: STORE 2 - BEAVER - CASEY TONEY