



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 290737
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0222535	JR0112857	JR0055559
Sample Date		Client Info		26 Jun 2024	06 May 2022	29 Jul 2020
Machine Age	hrs	Client Info		2999	2342	695
Oil Age	hrs	Client Info		1806	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	23	9	39
Chromium	ppm	ASTM D5185m	>11	<1	<1	1
Nickel	ppm	ASTM D5185m	>5	0	0	1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	5	2	5
Lead	ppm	ASTM D5185m	>26	0	0	2
Copper	ppm	ASTM D5185m	>26	2	<1	8
Tin	ppm	ASTM D5185m	>4	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

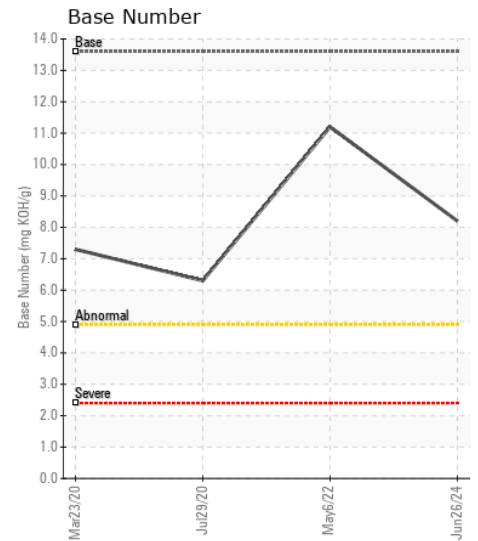
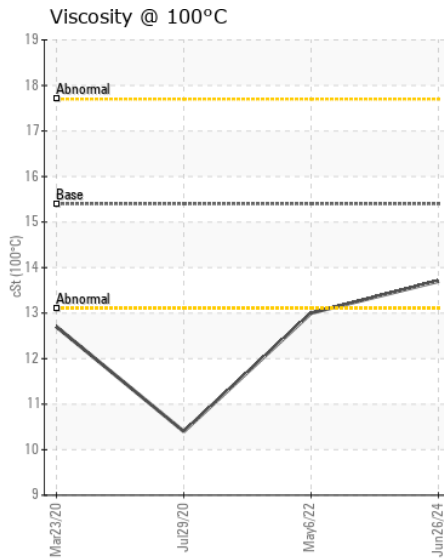
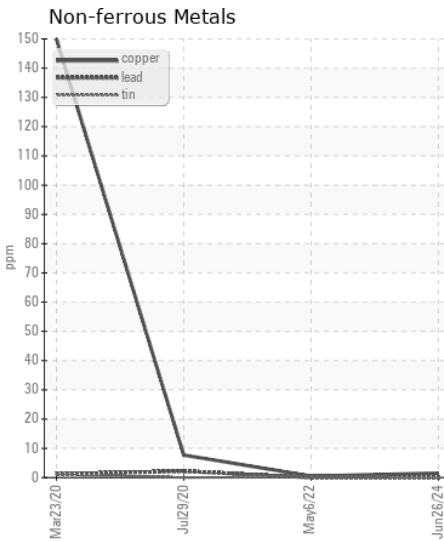
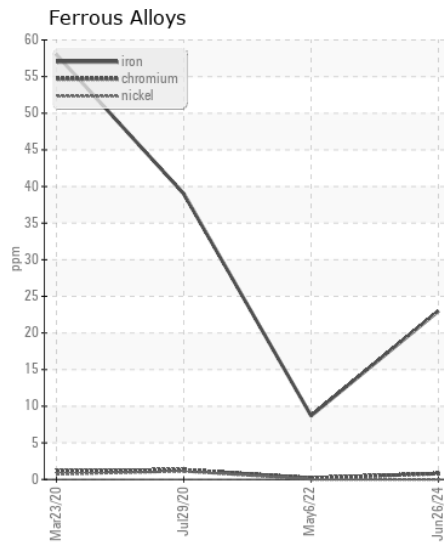
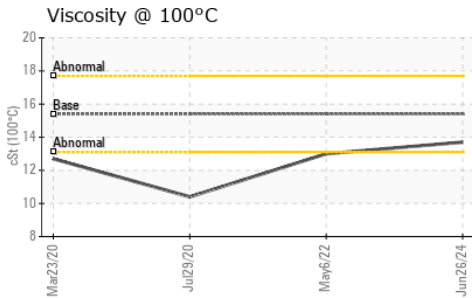
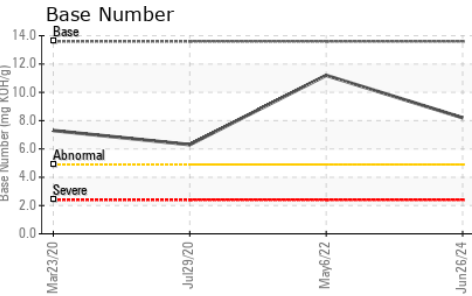
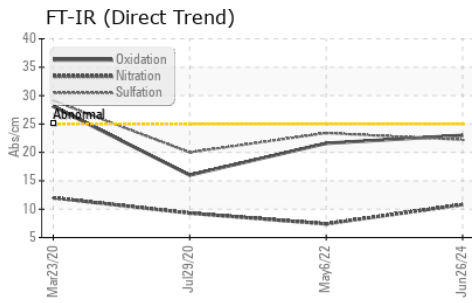
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	16	12	51
Potassium	ppm	ASTM D5185m	>20	3	3	▲ 216
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	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	10.8	7.4	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	23.4	20
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	4	<1	11
Boron	ppm	ASTM D5185m		33	65	163
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		47	39	183
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		636	545	20
Calcium	ppm	ASTM D5185m		2105	1777	2580
Phosphorus	ppm	ASTM D5185m		957	829	684
Zinc	ppm	ASTM D5185m		1155	1032	775
Sulfur	ppm	ASTM D5185m		3397	2273	2051
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.0	21.6	16
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.2	11.2	6.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.0	10.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0222535 **Received** : 28 Jun 2024
Lab Number : 06223263 **Tested** : 28 Jun 2024
Unique Number : 11101460 **Diagnosed** : 30 Jun 2024 - Don Baldrige
Test Package : CONST (Additional Tests: TBN)

JRE - GARNER
 4161 AUBURN CHURCH RD
 GARNER, NC
 US 27529

Contact: RALEIGH SHOP
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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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