



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 524L 1DW524LZKKF701078

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		JR0172049	JR0155490	JR0151401
Sample Date		Client Info		05 Jun 2023	30 Mar 2023	01 Dec 2022
Machine Age	hrs	Client Info		4508	4317	4032
Oil Age	hrs	Client Info		0	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	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	7	3	10
Chromium	ppm	ASTM D5185m	>11	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	2	2	2
Lead	ppm	ASTM D5185m	>26	0	0	<1
Copper	ppm	ASTM D5185m	>26	<1	<1	1
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

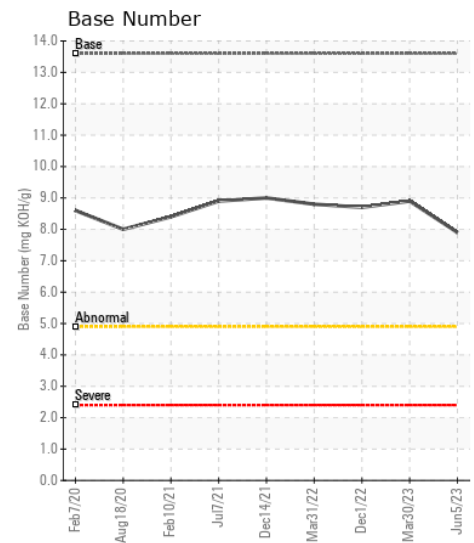
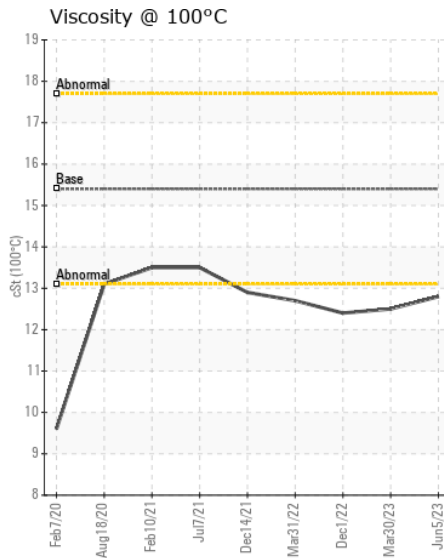
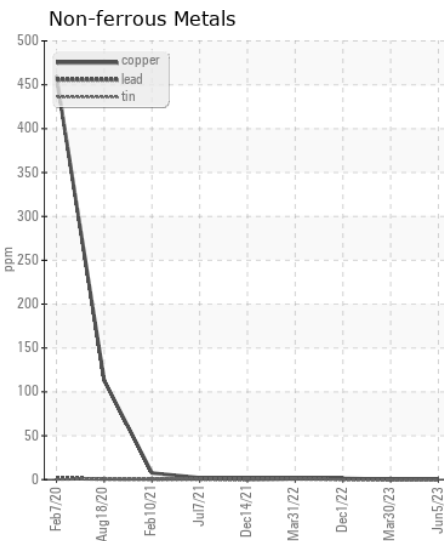
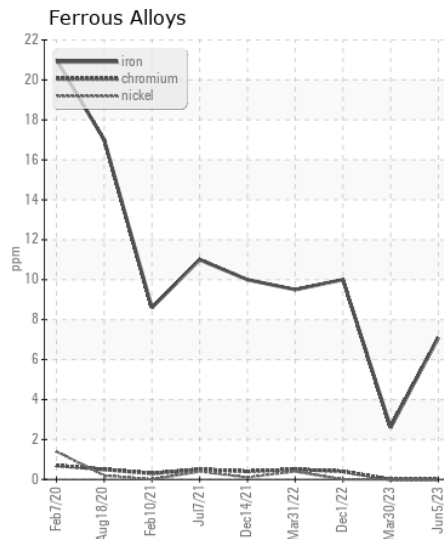
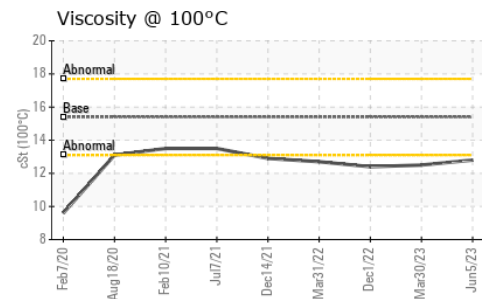
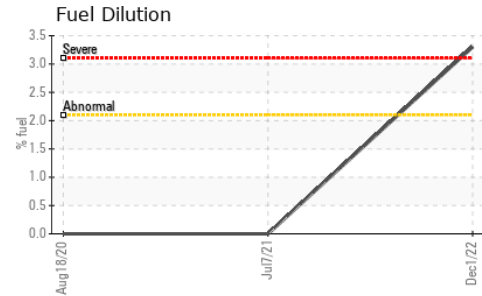
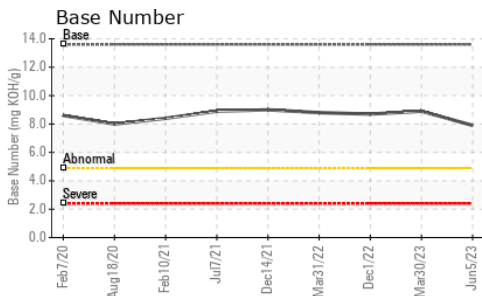
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	5	6	7
Potassium	ppm	ASTM D5185m	>20	<1	<1	2
Fuel	%	ASTM D3524	>2.1	<1.0	<1.0	▲ 3.3
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.5	9.3	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	20.3	24.9
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

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	2	3	2
Boron	ppm	ASTM D5185m		229	278	171
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		221	228	238
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		761	781	718
Calcium	ppm	ASTM D5185m		1424	1409	1360
Phosphorus	ppm	ASTM D5185m		814	868	817
Zinc	ppm	ASTM D5185m		1011	1022	1016
Sulfur	ppm	ASTM D5185m		3320	3266	3458
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.8	15.3	20.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.9	8.9	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	12.5	● 12.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0172049 **Received** : 07 Jun 2023
Lab Number : 05867171 **Tested** : 08 Jun 2023
Unique Number : 10506955 **Diagnosed** : 09 Jun 2023 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, TBN)

JRE - CHARLOTTE
 9550 STATESVILLE ROAD
 CHARLOTTE, NC
 US 28269

Contact: CHARLOTTE SHOP
 myoung@jamesriverequipment.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

T: (704)597-0211

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

F: (704)596-6198

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)