



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 748L 1DW748LBCKF702411
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0193991	JR0186661	JR0167342
Sample Date		Client Info		12 Dec 2023	09 Sep 2023	21 Jun 2023
Machine Age	hrs	Client Info		8090	7082	7082
Oil Age	hrs	Client Info		1008	7082	571
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	10	8	2
Chromium	ppm	ASTM D5185m	>11	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	3	8	<1
Lead	ppm	ASTM D5185m	>26	0	0	<1
Copper	ppm	ASTM D5185m	>26	0	<1	<1
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

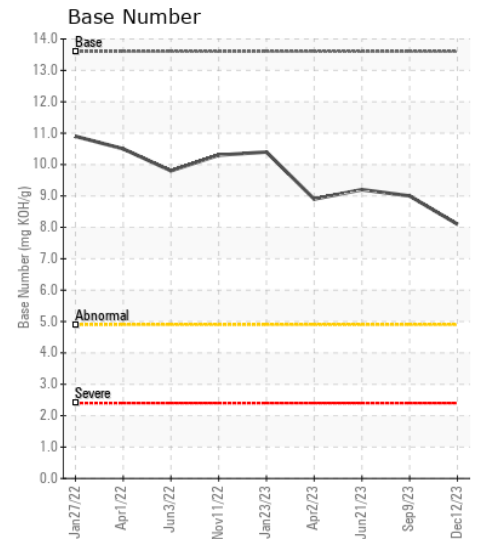
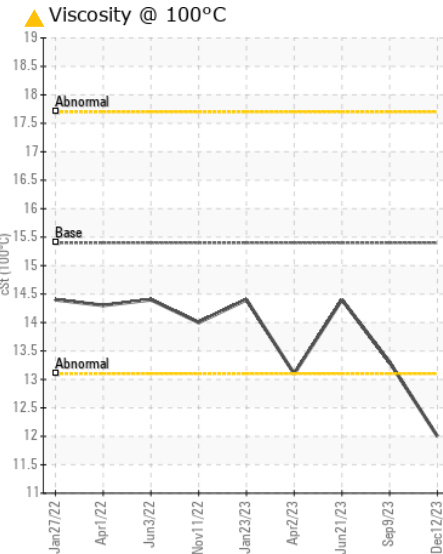
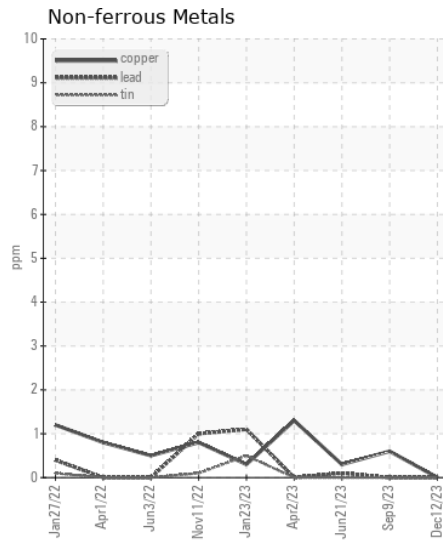
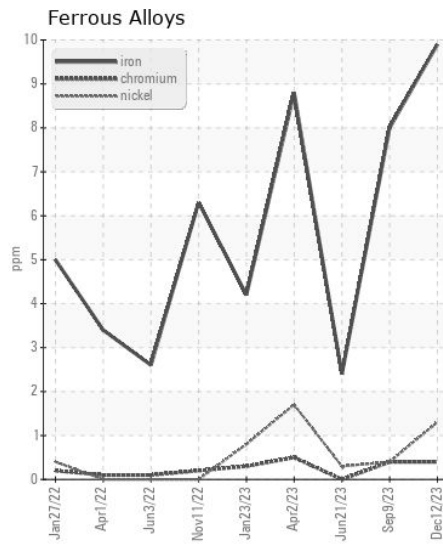
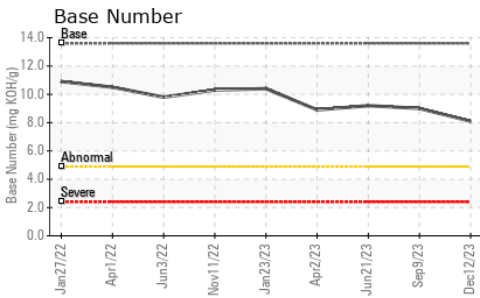
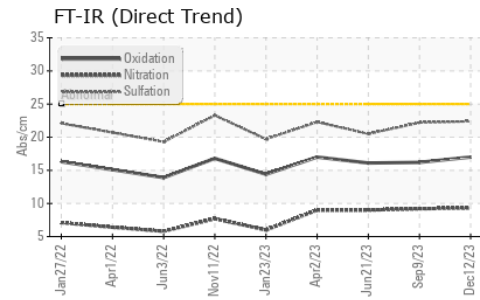
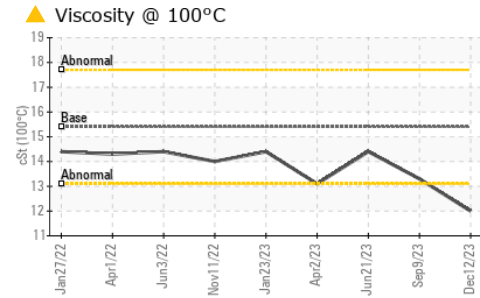
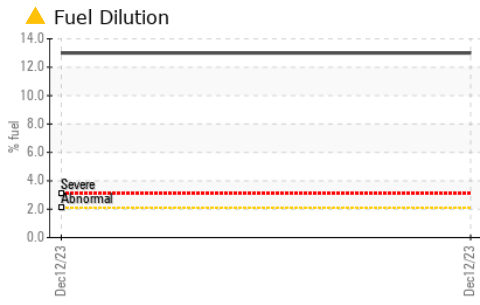
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>22	6	6	8
Potassium	ppm	ASTM D5185m	>20	1	1	1
Fuel	%	ASTM D3524	>2.1	▲ 13.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.3	9.2	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	22.2	20.5
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 oil viscosity is lower than normal. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>31	1	3	0
Boron	ppm	ASTM D5185m		147	181	331
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		212	249	254
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		719	864	750
Calcium	ppm	ASTM D5185m		1399	1458	1333
Phosphorus	ppm	ASTM D5185m		872	904	863
Zinc	ppm	ASTM D5185m		1067	1117	1014
Sulfur	ppm	ASTM D5185m		2938	3646	3084
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	16.2	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.1	9.0	9.2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.0	13.3	14.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0193991 **Received** : 14 Dec 2023
Lab Number : 06034452 **Tested** : 19 Dec 2023
Unique Number : 10789681 **Diagnosed** : 19 Dec 2023 - Angela Borella
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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

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

Contact: RALEIGH SHOP
 sean.betts@jamesriverequipment.com; catherine.anastasio@wearcheck.com

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

T: (919)614-2260

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

F: (919)779-5432