



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
JOHN DEERE 624L 1DW624LZPJF693839

Component
Diesel Engine

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

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0203171	JR0184082	JR0174709
Sample Date		Client Info		29 Jan 2024	14 Sep 2023	31 May 2023
Machine Age	hrs	Client Info		5668	5200	4707
Oil Age	hrs	Client Info		468	493	448
Filter Age	hrs	Client Info		0	493	448
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	6	7	6
Chromium	ppm	ASTM D5185m	>11	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	2	3	0
Lead	ppm	ASTM D5185m	>26	0	0	0
Copper	ppm	ASTM D5185m	>26	1	<1	2
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil.

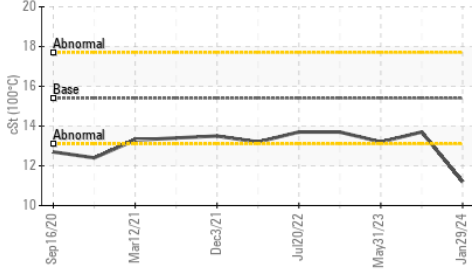
Silicon	ppm	ASTM D5185m	>22	4	6	6
Potassium	ppm	ASTM D5185m	>20	5	2	2
Fuel	%	ASTM D3524	>2.1	1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.3	9.0	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	24.3	22.1
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

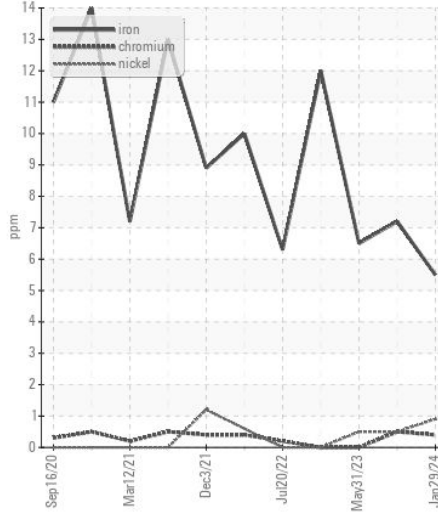
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>31	0	2	2
Boron	ppm	ASTM D5185m		146	244	224
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		156	271	228
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		485	806	805
Calcium	ppm	ASTM D5185m		2065	1503	1461
Phosphorus	ppm	ASTM D5185m		922	924	876
Zinc	ppm	ASTM D5185m		1118	1123	1075
Sulfur	ppm	ASTM D5185m		3180	3604	3566
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	17.0	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.8	9.2	9.0
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.2	13.7	13.2

▲ Viscosity @ 100°C



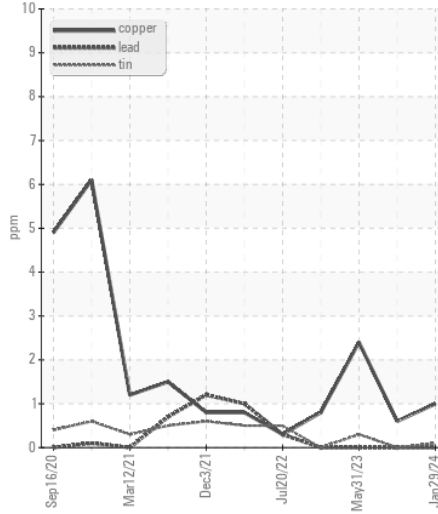
Ferrous Alloys



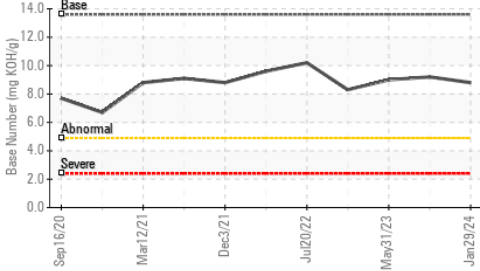
Fuel Dilution



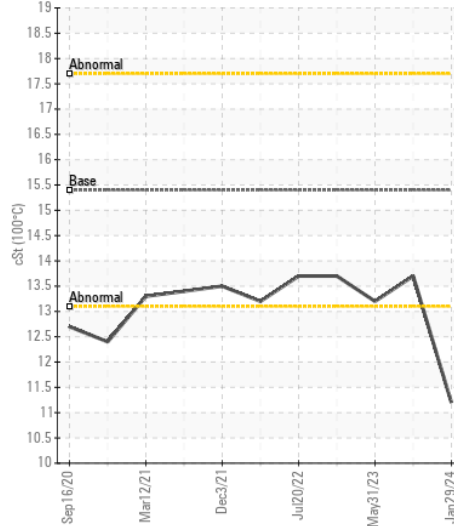
Non-ferrous Metals



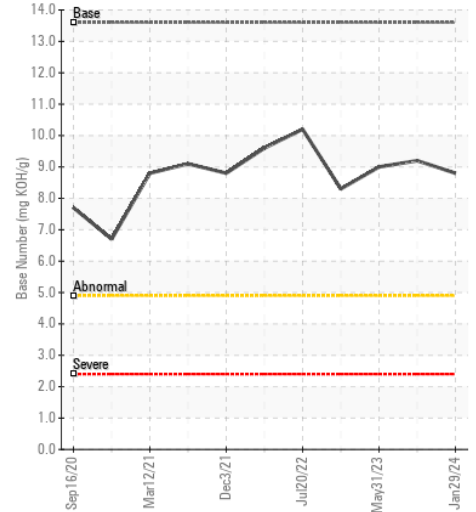
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0203171 **Received** : 01 Feb 2024
Lab Number : 06076743 **Tested** : 05 Feb 2024
Unique Number : 10858834 **Diagnosed** : 05 Feb 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

JRE - MANASSAS PARK
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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)