



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
JOHN DEERE 410E 1DW410EBVMF708949

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (12 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		JR0220079	JR0192855	JR0193459
Sample Date		Client Info		25 Jun 2024	06 Mar 2024	29 Nov 2023
Machine Age	hrs	Client Info		5493	5006	4623
Oil Age	hrs	Client Info		487	383	668
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	10	6	21
Chromium	ppm	ASTM D5185m	>11	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	6	6	12
Lead	ppm	ASTM D5185m	>26	3	<1	6
Copper	ppm	ASTM D5185m	>26	6	4	16
Tin	ppm	ASTM D5185m	>4	1	1	3
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

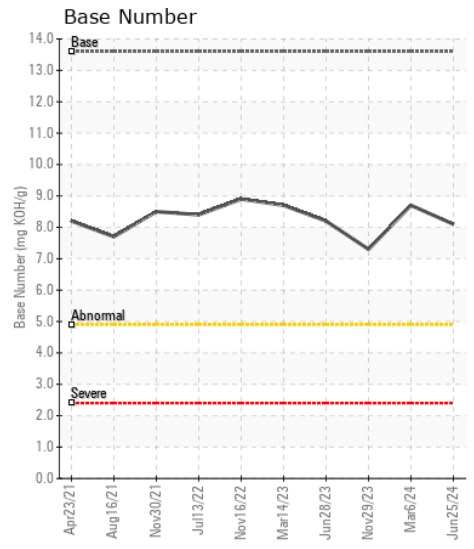
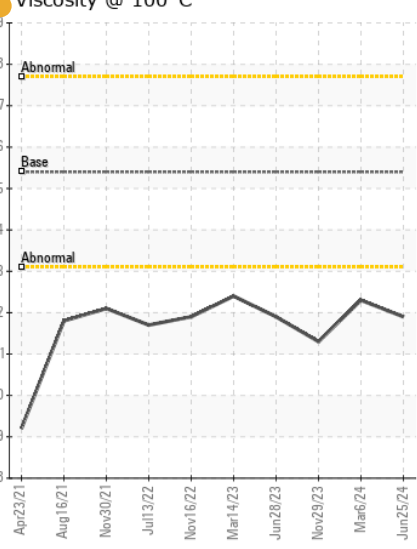
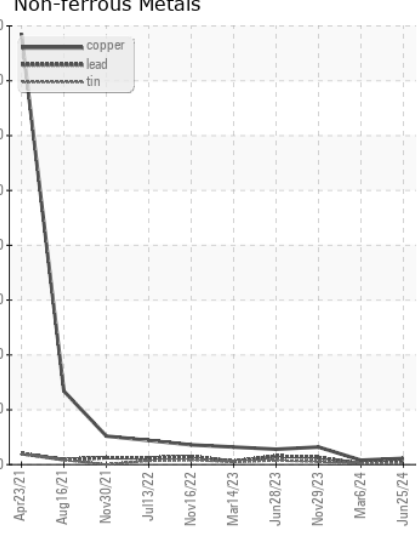
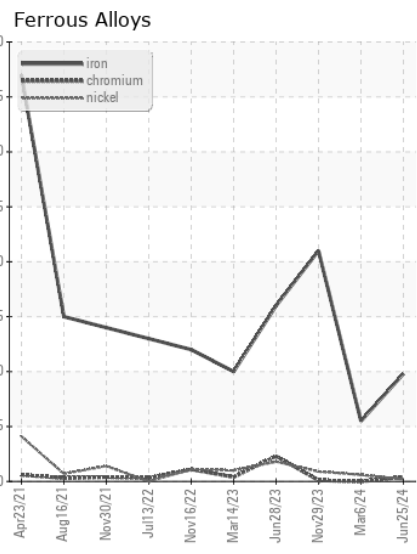
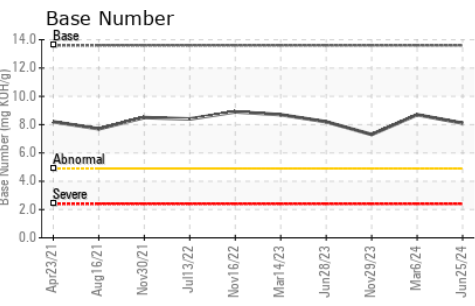
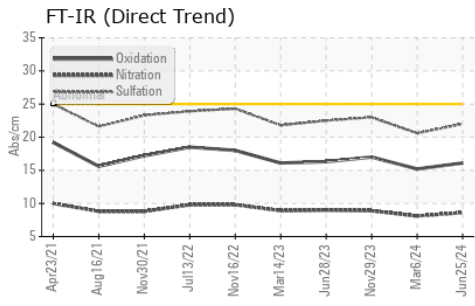
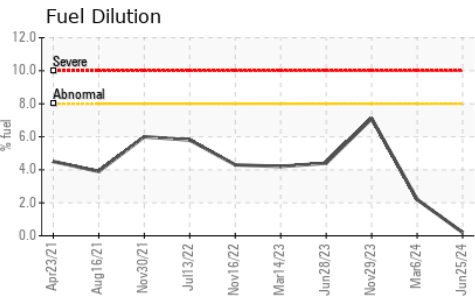
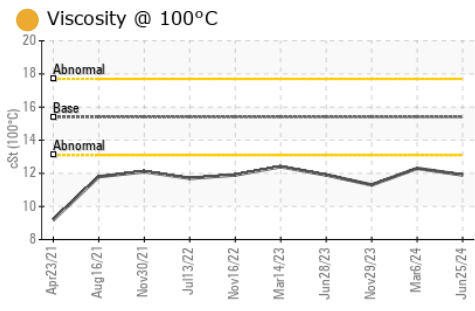
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	9	6	14
Potassium	ppm	ASTM D5185m	>20	0	2	2
Fuel	%	ASTM D3524	>8.0	0.2	2.2	7.1
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.6	8.1	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0	20.6	23.0
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	3	3	1
Boron	ppm	ASTM D5185m		163	211	100
Barium	ppm	ASTM D5185m		<1	0	3
Molybdenum	ppm	ASTM D5185m		229	222	231
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		832	764	696
Calcium	ppm	ASTM D5185m		1522	1282	1319
Phosphorus	ppm	ASTM D5185m		959	894	720
Zinc	ppm	ASTM D5185m		1138	1032	927
Sulfur	ppm	ASTM D5185m		3732	2912	3399
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.1	15.2	17.0
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.1	8.7	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	11.9	12.3	11.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0220079
Lab Number : 06224294
Unique Number : 11102491
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

Received : 01 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 03 Jul 2024 - Jonathan Hester

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.

* - 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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