



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
JOHN DEERE 410E-II 1DW410ELKNF713302
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		JR0213229	JR0194441	JR0187201
Sample Date		Client Info		21 May 2024	04 Jan 2024	20 Sep 2023
Machine Age	hrs	Client Info		2236	1537	1099
Oil Age	hrs	Client Info		0	0	682
Filter Age	hrs	Client Info		0	0	682
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ATTENTION	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	9	10	22
Chromium	ppm	ASTM D5185m	>11	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	2	5	1
Lead	ppm	ASTM D5185m	>26	4	4	10
Copper	ppm	ASTM D5185m	>26	16	26	▲ 84
Tin	ppm	ASTM D5185m	>4	<1	3	5
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

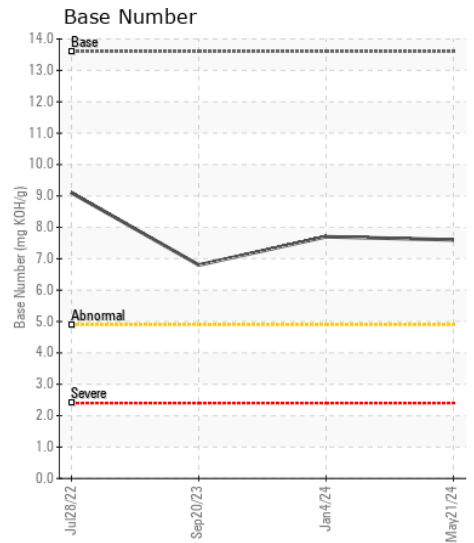
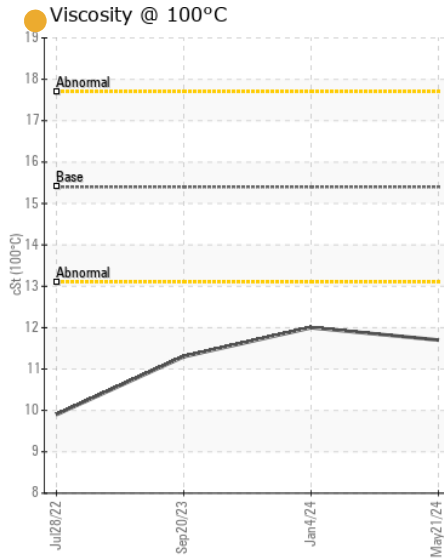
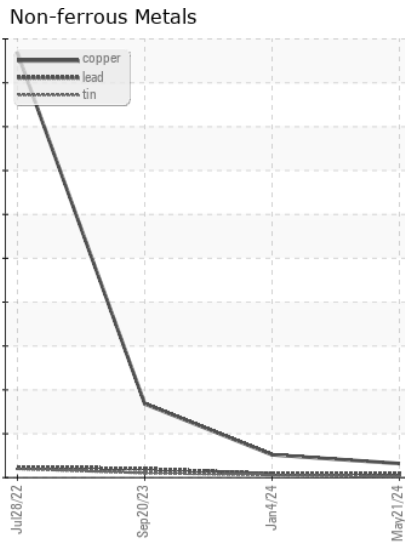
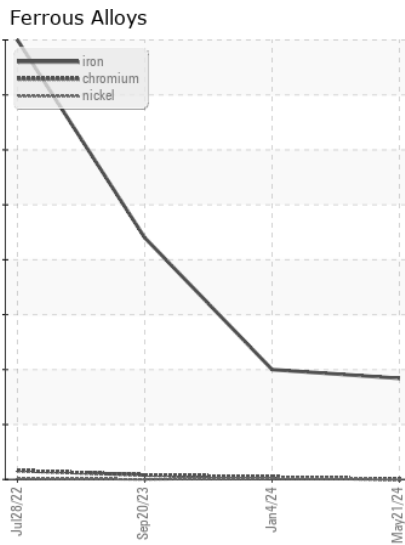
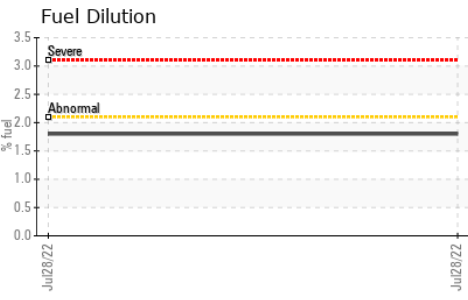
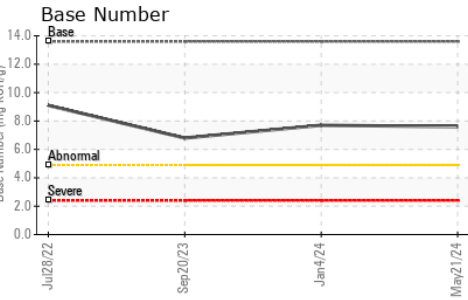
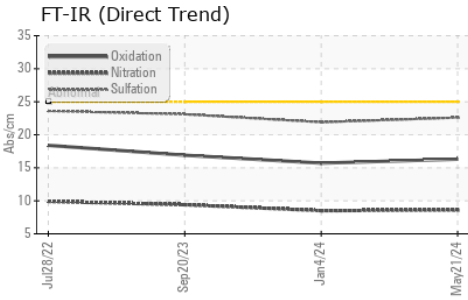
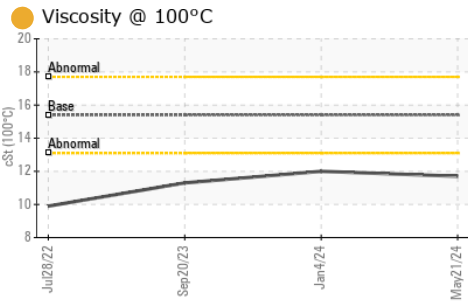
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	4	6	6
Potassium	ppm	ASTM D5185m	>20	0	3	3
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	0.3	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.6	8.5	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	21.9	23.1
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	2	0	4
Boron	ppm	ASTM D5185m		170	186	97
Barium	ppm	ASTM D5185m		0	11	0
Molybdenum	ppm	ASTM D5185m		232	241	209
Manganese	ppm	ASTM D5185m		0	<1	2
Magnesium	ppm	ASTM D5185m		748	729	731
Calcium	ppm	ASTM D5185m		1432	1284	1428
Phosphorus	ppm	ASTM D5185m		805	910	750
Zinc	ppm	ASTM D5185m		974	977	975
Sulfur	ppm	ASTM D5185m		3149	3139	3051
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	15.7	16.9
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.6	7.7	6.8
Visc @ 100°C	cSt	ASTM D445	15.4	11.7	12.0	11.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0213229 **Received** : 22 May 2024
Lab Number : 06187450 **Tested** : 23 May 2024
Unique Number : 11044202 **Diagnosed** : 24 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, TBN)

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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)