



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 410E-II 1DW410ELJMF710562

Component
Diesel Engine

Fluid
{not provided} (--- 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		JR0175622	JR0139143	---
Sample Date		Client Info		11 Jul 2023	15 Aug 2022	---
Machine Age	hrs	Client Info		2986	2060	---
Oil Age	hrs	Client Info		3243	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	42	33	---
Chromium	ppm	ASTM D5185m	>11	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	2	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>31	6	6	---
Lead	ppm	ASTM D5185m	>26	5	6	---
Copper	ppm	ASTM D5185m	>26	10	21	---
Tin	ppm	ASTM D5185m	>4	2	4	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

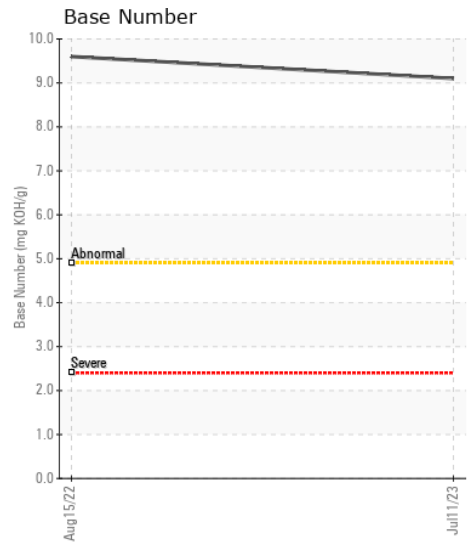
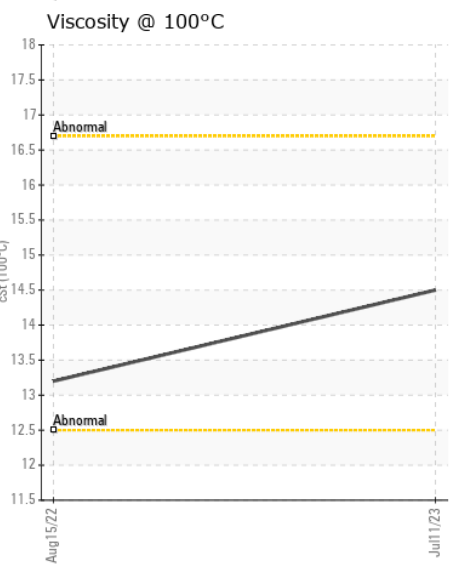
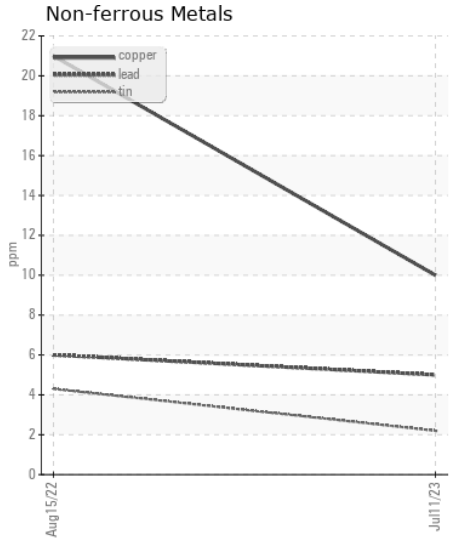
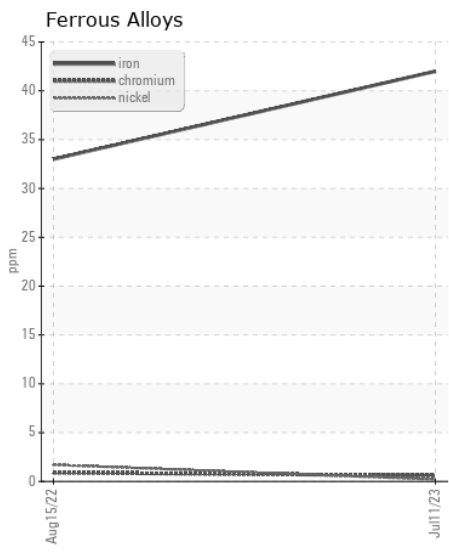
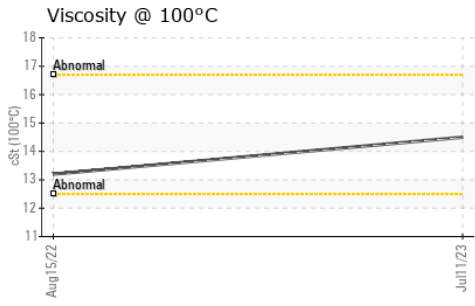
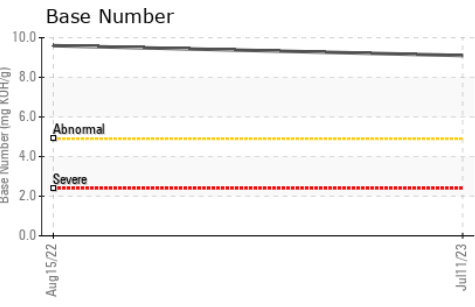
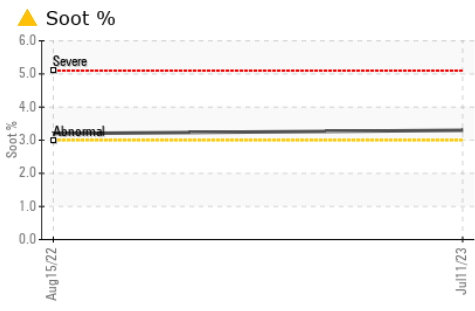
There is an abnormal amount of solids and carbon present in the oil.

Silicon	ppm	ASTM D5185m	>22	6	7	---
Potassium	ppm	ASTM D5185m	>20	2	3	---
Fuel	%	ASTM D3524	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	3.3	3.2	---
Nitration	Abs/cm	*ASTM D7624	>20	11.3	12.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.8	30.3	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>31	0	5	---
Boron	ppm	ASTM D5185m		141	91	---
Barium	ppm	ASTM D5185m		0	2	---
Molybdenum	ppm	ASTM D5185m		242	226	---
Manganese	ppm	ASTM D5185m		<1	1	---
Magnesium	ppm	ASTM D5185m		699	671	---
Calcium	ppm	ASTM D5185m		1296	1448	---
Phosphorus	ppm	ASTM D5185m		808	832	---
Zinc	ppm	ASTM D5185m		984	1060	---
Sulfur	ppm	ASTM D5185m		2914	3175	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.2	18.3	---
Base Number (BN)	mg KOH/g	ASTM D2896		9.1	9.6	---
Visc @ 100°C	cSt	ASTM D445		14.5	13.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0175622 **Received** : 13 Jul 2023
Lab Number : 05897266 **Tested** : 14 Jul 2023
Unique Number : 10553076 **Diagnosed** : 14 Jul 2023 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

JRE - CHARLOTTE
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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)