



OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION



Area
Store 1 - Cowen
Machine Id
JOHN DEERE 650J T0650JX109879
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (4 GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0043527	LEC0047400	---
Sample Date		Client Info		23 May 2024	18 Mar 2024	---
Machine Age	hrs	Client Info		3583	50	---
Oil Age	hrs	Client Info		105	50	---
Filter Age	hrs	Client Info		105	50	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	40	43	---
Chromium	ppm	ASTM D5185m	>11	3	2	---
Nickel	ppm	ASTM D5185m	>5	2	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	1	0	---
Aluminum	ppm	ASTM D5185m	>31	11	10	---
Lead	ppm	ASTM D5185m	>26	3	2	---
Copper	ppm	ASTM D5185m	>26	7	7	---
Tin	ppm	ASTM D5185m	>4	2	2	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

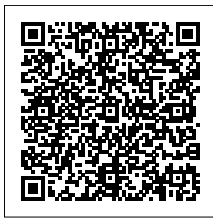
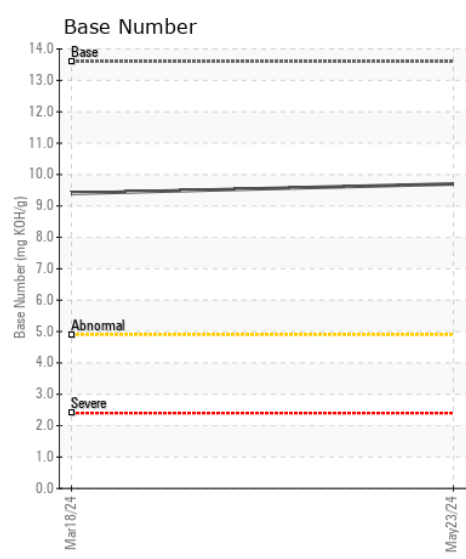
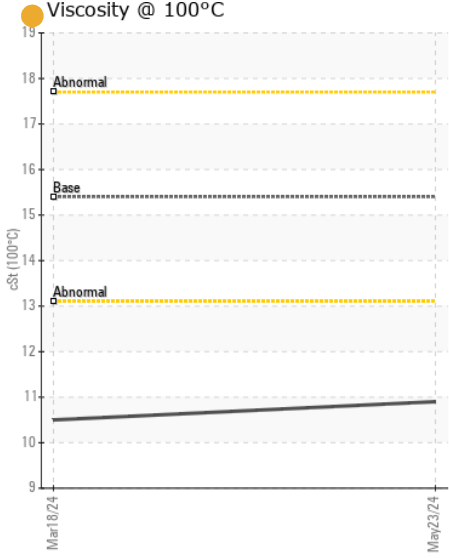
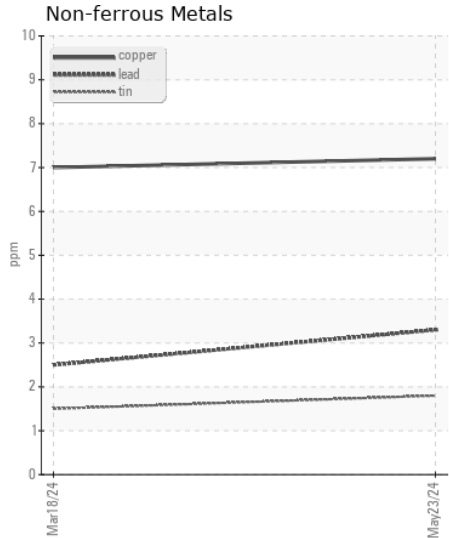
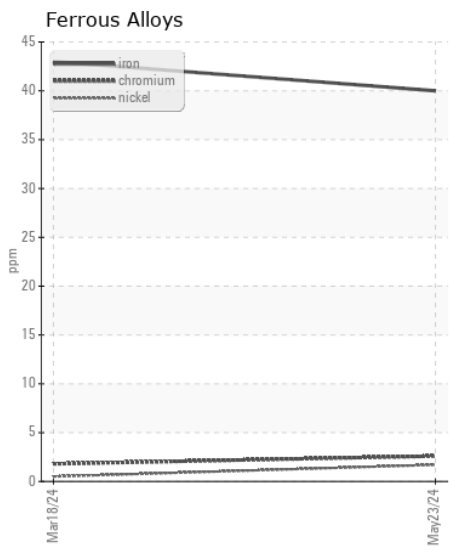
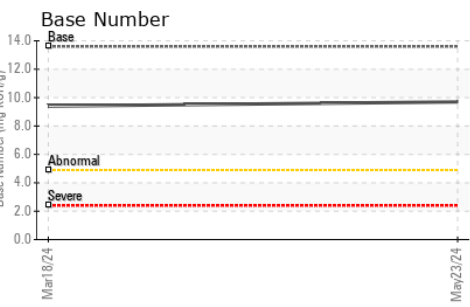
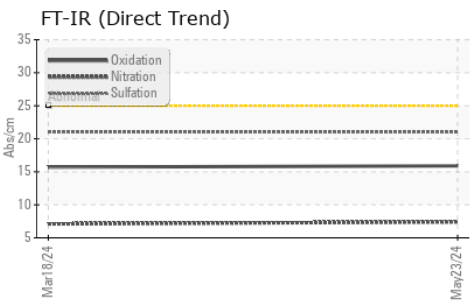
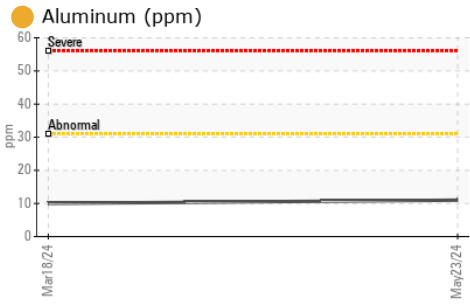
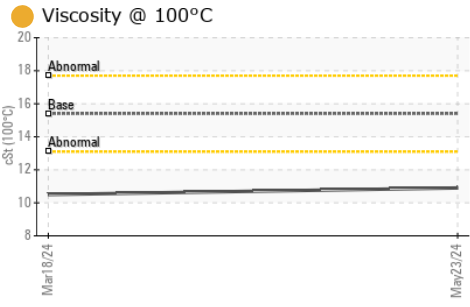
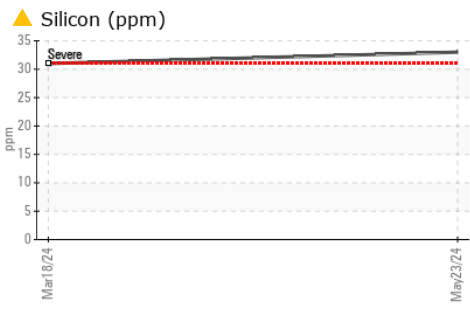
Fuel content negligible. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>120	33	31	---
Potassium	ppm	ASTM D5185m	>20	7	3	---
Fuel	%	ASTM D3524	>2.1	<1.0	0.2	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	7.4	7.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	21.0	---
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 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	12	12	---
Boron	ppm	ASTM D5185m		276	278	---
Barium	ppm	ASTM D5185m		2	<1	---
Molybdenum	ppm	ASTM D5185m		251	264	---
Manganese	ppm	ASTM D5185m		2	2	---
Magnesium	ppm	ASTM D5185m		815	812	---
Calcium	ppm	ASTM D5185m		1404	1403	---
Phosphorus	ppm	ASTM D5185m		922	904	---
Zinc	ppm	ASTM D5185m		1091	1060	---
Sulfur	ppm	ASTM D5185m		3182	3489	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	15.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.7	9.4	---
Visc @ 100°C	cSt	ASTM D445	15.4	10.9	10.5	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0043527 **Received** : 28 May 2024
Lab Number : 06191959 **Tested** : 29 May 2024
Unique Number : 11048711 **Diagnosed** : 30 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, TBN)

LESLIE EQUIPMENT COMPANY
 105 TENNIS CENTER DR.
 MARIETTA, OH
 US 45750-9765
 Contact: LEANNE KENDALL
 KendalLeanne@lec1.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) F: (740)373-5570