



OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
ABNORMAL
NORMAL



Area
Store 5 - Cross Lanes
Machine Id
JOHN DEERE 700K 1T0700KXEKF356403
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (7 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		LEC0024153	LEC0026475	---
Sample Date		Client Info		03 Nov 2022	26 Jan 2022	---
Machine Age	hrs	Client Info		514	309	---
Oil Age	hrs	Client Info		205	309	---
Filter Age	hrs	Client Info		205	309	---
Oil Changed		Client Info		Not Chngd	Changed	---
Filter Changed		Client Info		Not Chngd	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	44	34	---
Chromium	ppm	ASTM D5185m	>11	<1	1	---
Nickel	ppm	ASTM D5185m	>5	0	<1	---
Titanium	ppm	ASTM D5185m		2	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>31	58	3	---
Lead	ppm	ASTM D5185m	>26	2	2	---
Copper	ppm	ASTM D5185m	>26	48	▲ 256	---
Tin	ppm	ASTM D5185m	>4	11	2	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

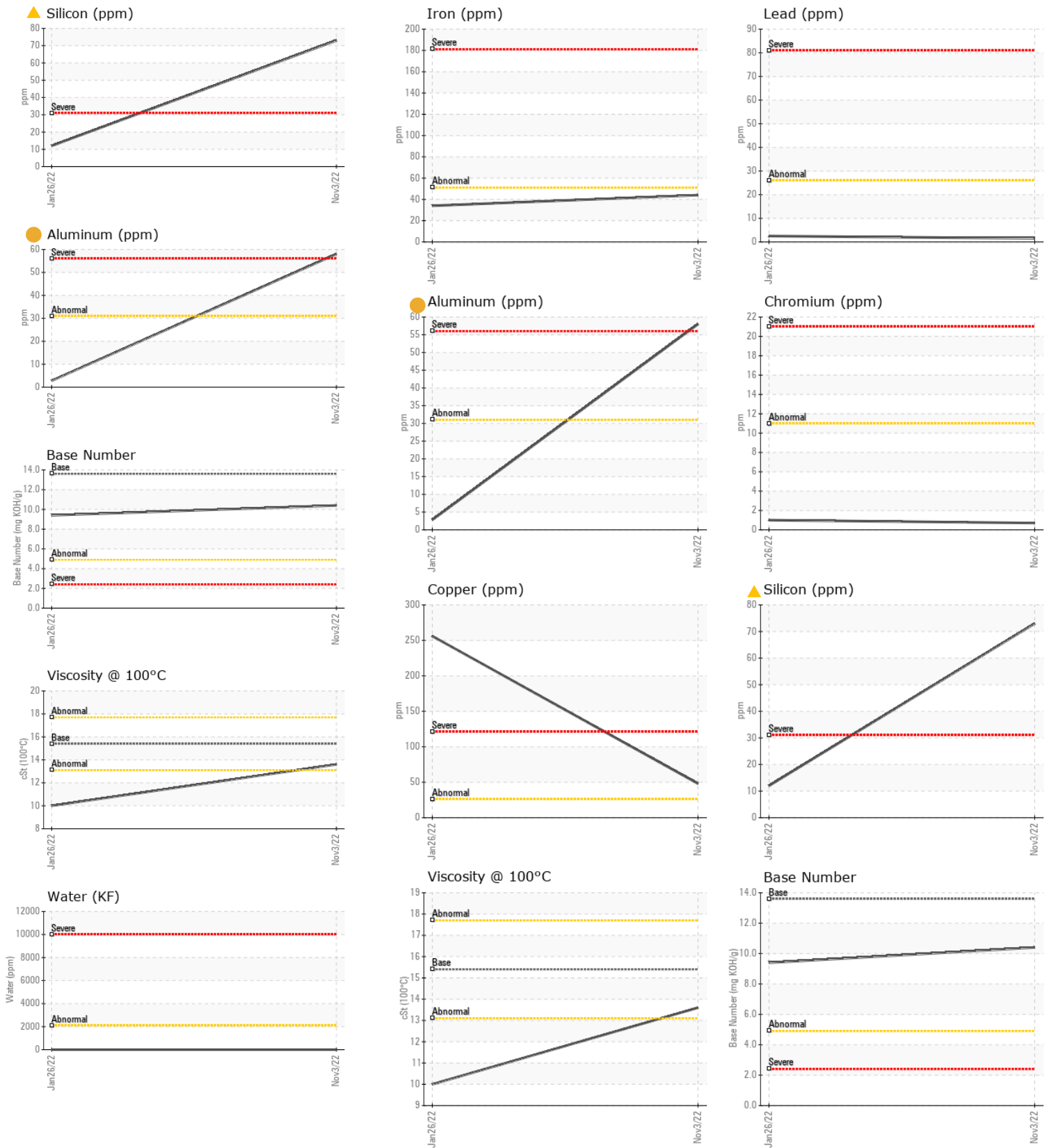
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>120	▲ 73	12	---
Potassium	ppm	ASTM D5185m	>20	8	<1	---
Fuel		WC Method	>2.1	<1.0	0.3	---
Water	%	ASTM D6304	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	9.2	10.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23	24.7	---
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	3	8	---
Boron	ppm	ASTM D5185m		269	211	---
Barium	ppm	ASTM D5185m		<1	0	---
Molybdenum	ppm	ASTM D5185m		237	260	---
Manganese	ppm	ASTM D5185m		2	4	---
Magnesium	ppm	ASTM D5185m		751	827	---
Calcium	ppm	ASTM D5185m		1401	1431	---
Phosphorus	ppm	ASTM D5185m		823	796	---
Zinc	ppm	ASTM D5185m		955	1013	---
Sulfur	ppm	ASTM D5185m		3234	2541	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	20.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	10.4	9.4	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	● 10.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0024153 **Received** : 07 Nov 2022
Lab Number : 05686275 **Tested** : 08 Nov 2022
Unique Number : 10205847 **Diagnosed** : 09 Nov 2022 - Don Baldrige
Test Package : MOBCE (Additional Tests: KF, 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)