



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL



Area
Store 9 - Marietta
Machine Id
JOHN DEERE 850K SB4 (S/N EE256189)
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0049310	LEC0015560	---
Sample Date		Client Info		17 Jun 2024	03 Sep 2020	---
Machine Age	hrs	Client Info		2835	1775	---
Oil Age	hrs	Client Info		500	500	---
Filter Age	hrs	Client Info		500	500	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				SEVERE	NORMAL	---

WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 379	42	---
Chromium	ppm	ASTM D5185m	>11	▲ 14	<1	---
Nickel	ppm	ASTM D5185m	>5	▲ 19	<1	---
Titanium	ppm	ASTM D5185m		2	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>31	● 25	<1	---
Lead	ppm	ASTM D5185m	>26	0	<1	---
Copper	ppm	ASTM D5185m	>26	25	205	---
Tin	ppm	ASTM D5185m	>4	2	1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

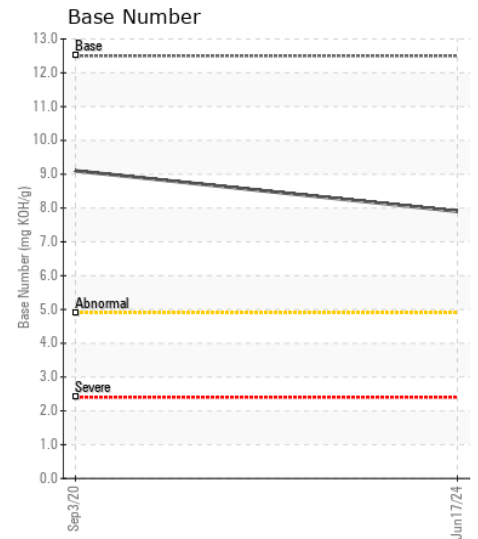
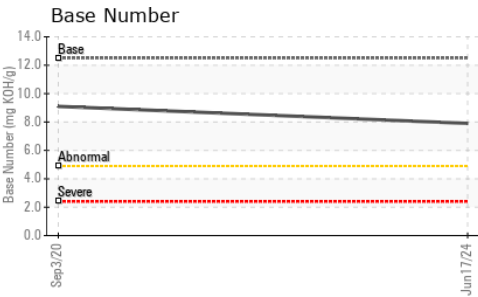
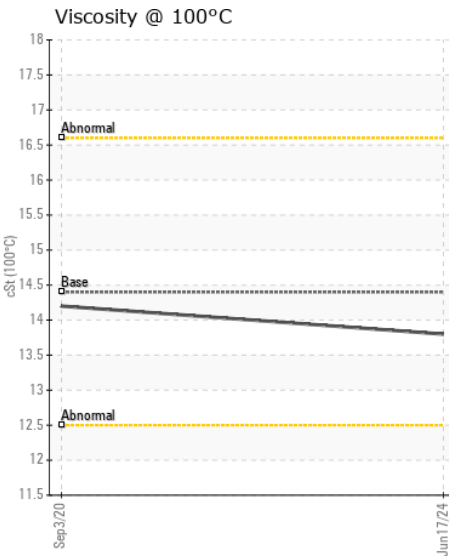
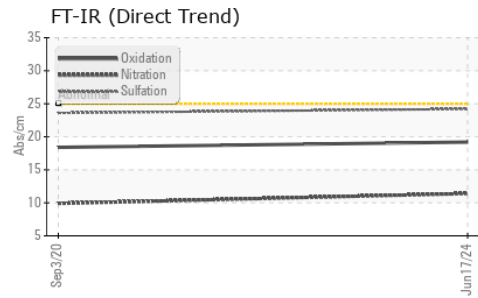
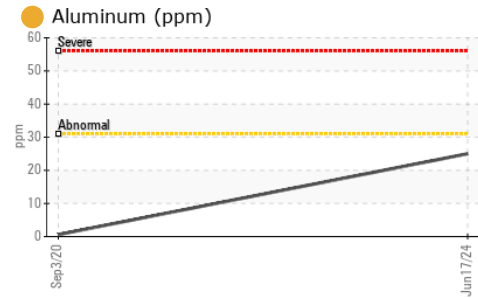
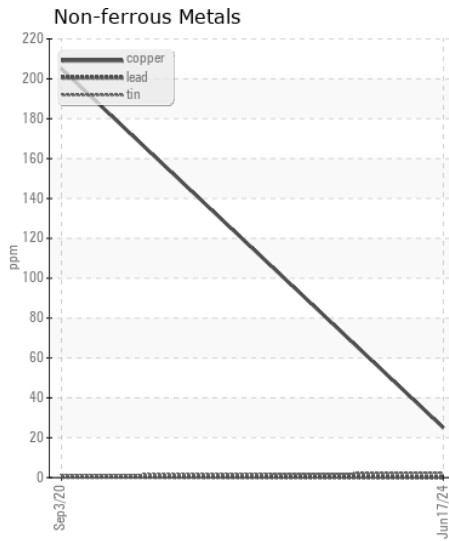
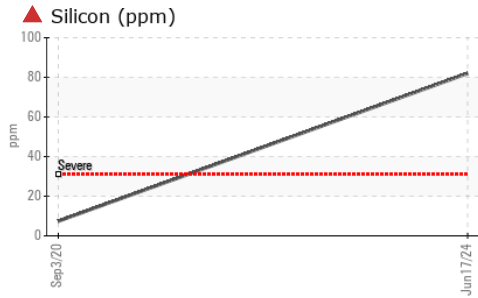
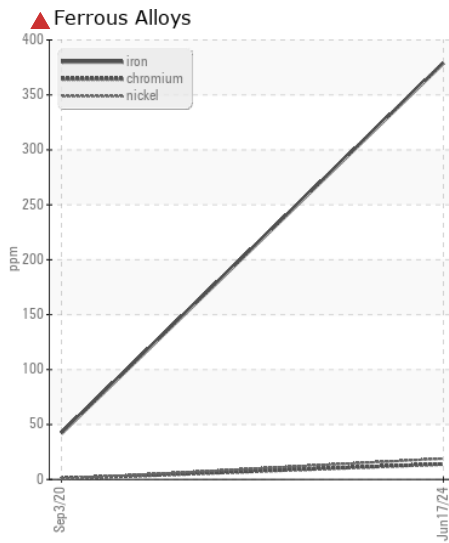
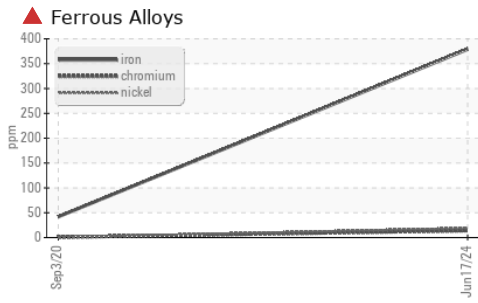
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>120	▲ 82	7	---
Potassium	ppm	ASTM D5185m	>20	7	4	---
Fuel		WC Method	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.6	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	11.4	9.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.2	23.6	---
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 is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>31	4	3	---
Boron	ppm	ASTM D5185m	151	186	243	---
Barium	ppm	ASTM D5185m	0.4	0	<1	---
Molybdenum	ppm	ASTM D5185m	250	114	251	---
Manganese	ppm	ASTM D5185m		5	<1	---
Magnesium	ppm	ASTM D5185m	0	723	749	---
Calcium	ppm	ASTM D5185m	2046	1569	1533	---
Phosphorus	ppm	ASTM D5185m	1043	756	935	---
Zinc	ppm	ASTM D5185m	943	895	1078	---
Sulfur	ppm	ASTM D5185m	5012	3004	2649	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	18.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	7.9	9.1	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.8	14.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0049310 **Received** : 03 Jul 2024
Lab Number : 06227162 **Tested** : 05 Jul 2024
Unique Number : 11110655 **Diagnosed** : 05 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: TBN, KV40)

LANE PIPELINE
 2946 E MAIN ST
 BRIDGEPORT, WV
 US 26330

Contact: JESSE WILBURN
 jessewilburn@gmail.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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