



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 1 - Cowen [147365]
Machine Id
JOHN DEERE 550K 1T0550KXKGF300306NEW
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0047423	LEC0011409	LEC0011522
Sample Date		Client Info		31 Jan 2024	17 Jul 2020	14 Jul 2020
Machine Age	hrs	Client Info		4567	2201	2198
Oil Age	hrs	Client Info		724	3	158
Filter Age	hrs	Client Info		724	5	158
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

The lead level is abnormal. All other component wear rates are normal for time on oil.

Iron	ppm	ASTM D5185m	>51	76	5	10
Chromium	ppm	ASTM D5185m	>11	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	13	5	5
Lead	ppm	ASTM D5185m	>26	▲ 56	0	2
Copper	ppm	ASTM D5185m	>26	4	<1	<1
Tin	ppm	ASTM D5185m	>4	1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
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.

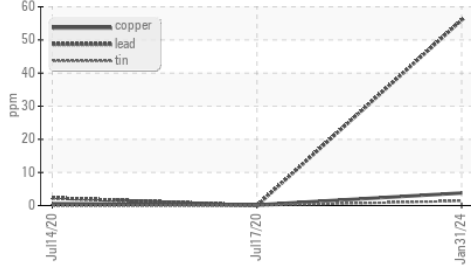
Silicon	ppm	ASTM D5185m	>120	13	9	6
Potassium	ppm	ASTM D5185m	>20	4	<1	0
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	13.7	5.9	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.3	20.6	21.9
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

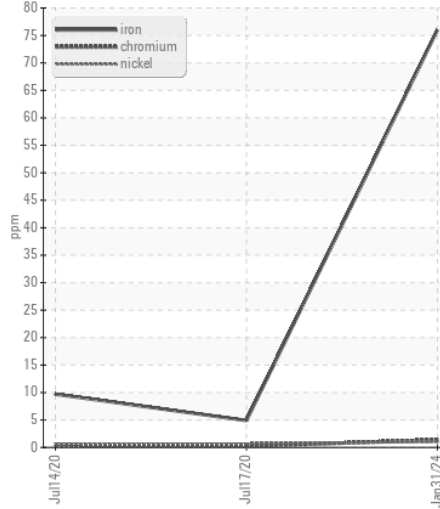
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	3	3	2
Boron	ppm	ASTM D5185m		65	365	230
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		325	348	242
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		1046	1233	827
Calcium	ppm	ASTM D5185m		1801	1994	1366
Phosphorus	ppm	ASTM D5185m		1107	1218	861
Zinc	ppm	ASTM D5185m		1324	1350	946
Sulfur	ppm	ASTM D5185m		4133	3496	2292
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.7	15.5	17.2
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.8	10.6	9.6
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	15.5	14.6

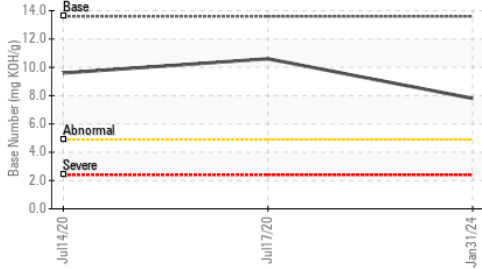
▲ Non-ferrous Metals



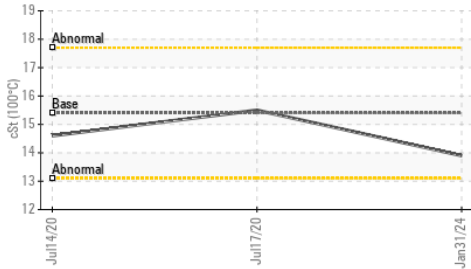
Ferrous Alloys



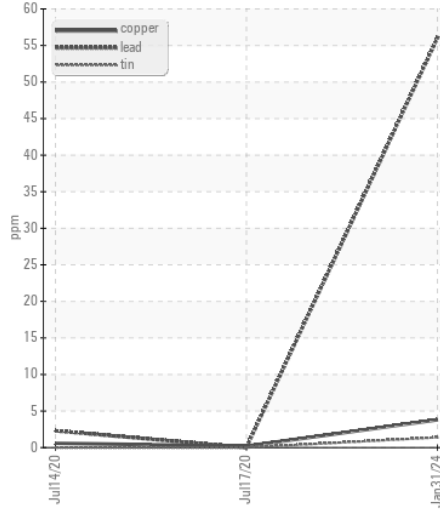
Base Number



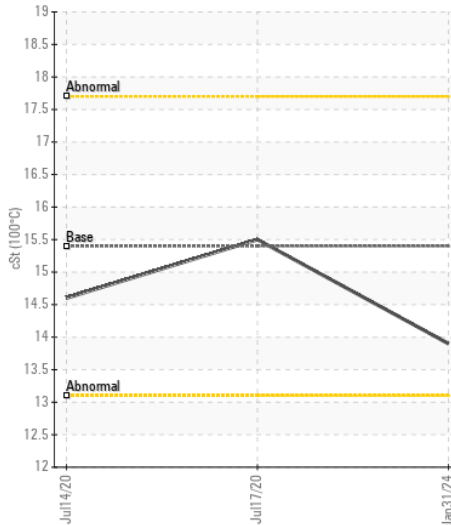
Viscosity @ 100°C



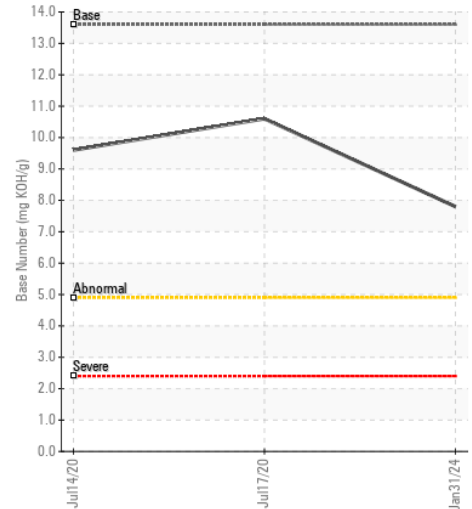
▲ Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0047423 **Received** : 08 Feb 2024
Lab Number : 06083311 **Tested** : 08 Feb 2024
Unique Number : 10870756 **Diagnosed** : 09 Feb 2024 - Don Baldrige
Test Package : CONST (Additional Tests: 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)

T: (740)373-5570