



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 4 - Fairmont
Machine Id
PETERBILT 337 2N92HJ6X3MM732488
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (7 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0043887	LEC0041389	LEC0037141
Sample Date		Client Info		09 Sep 2023	16 May 2023	13 Dec 2022
Machine Age	mls	Client Info		69711	59957	49971
Oil Age	mls	Client Info		9754	9986	10573
Filter Age	mls	Client Info		9754	9986	10573
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>110	19	19	18
Chromium	ppm	ASTM D5185m	>4	1	1	1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>25	21	15	35
Lead	ppm	ASTM D5185m	>45	0	0	<1
Copper	ppm	ASTM D5185m	>85	28	94	71
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

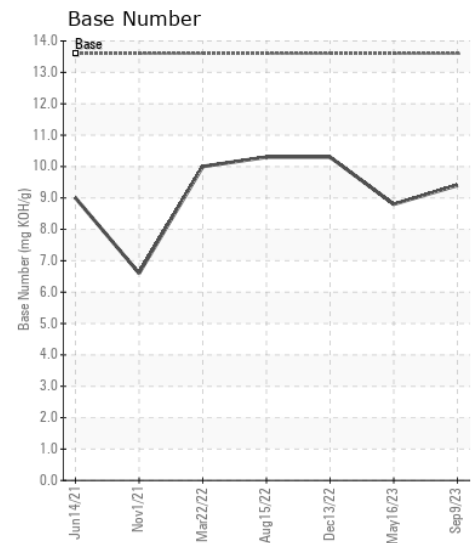
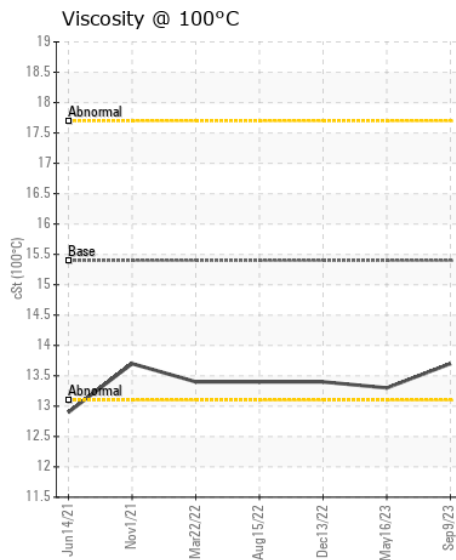
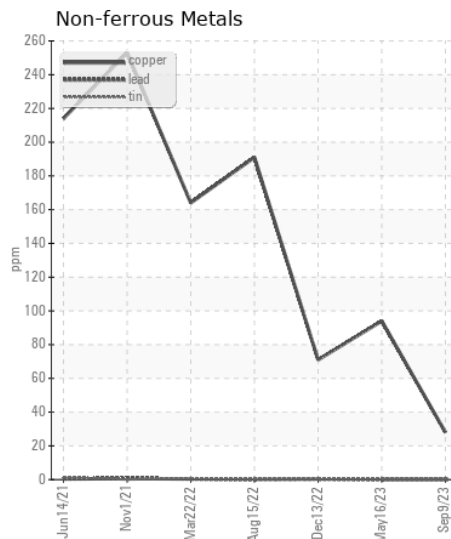
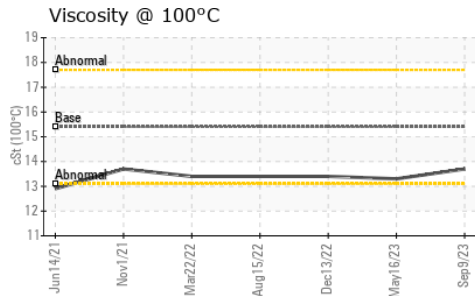
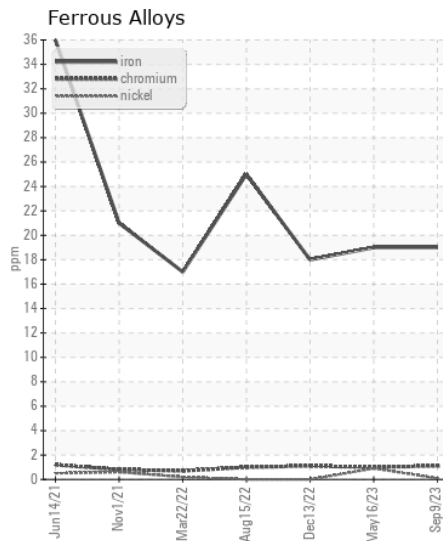
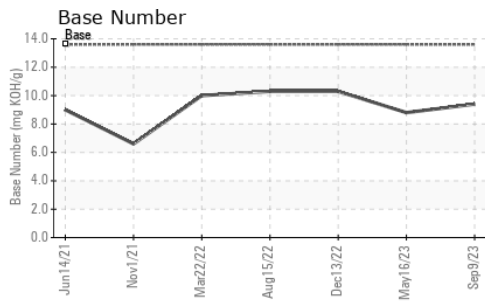
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	12	9	10
Potassium	ppm	ASTM D5185m	>20	53	30	63
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.6	9.1	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	22.1	23.1
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	>0.2	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		3	0	2
Boron	ppm	ASTM D5185m		234	206	218
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		263	239	220
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		871	713	729
Calcium	ppm	ASTM D5185m		1647	1489	1561
Phosphorus	ppm	ASTM D5185m		949	891	894
Zinc	ppm	ASTM D5185m		1175	1082	1116
Sulfur	ppm	ASTM D5185m		3840	2911	3516
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	17.3	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.4	8.8	10.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.3	13.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0043887 **Received** : 13 Sep 2023
Lab Number : 05949995 **Tested** : 14 Sep 2023
Unique Number : 10645954 **Diagnosed** : 14 Sep 2023 - Wes Davis
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)

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