



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 1 - Cowen [150822]
Machine Id
JOHN DEERE 948L 1DW948LXVJF687283
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (8 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0040304	LEC0045980	LEC0040532
Sample Date		Client Info		24 May 2024	11 Jan 2024	18 Aug 2023
Machine Age	hrs	Client Info		7188	0	6175
Oil Age	hrs	Client Info		483	530	563
Filter Age	hrs	Client Info		483	530	563
Oil Changed		Client Info		Changed	Not Changed	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 101	24	33
Chromium	ppm	ASTM D5185m	>11	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	1	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	1	0	0
Aluminum	ppm	ASTM D5185m	>31	4	5	2
Lead	ppm	ASTM D5185m	>26	2	1	1
Copper	ppm	ASTM D5185m	>26	2	1	3
Tin	ppm	ASTM D5185m	>4	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

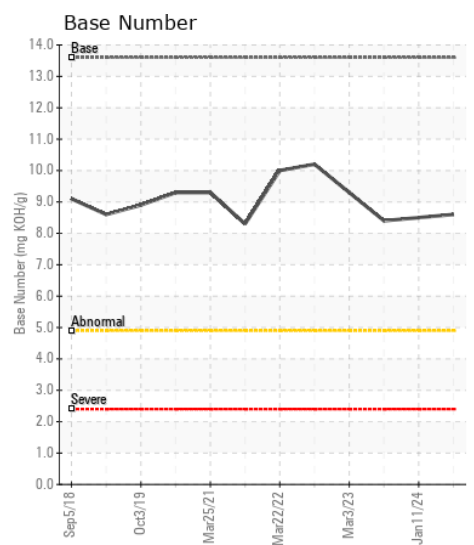
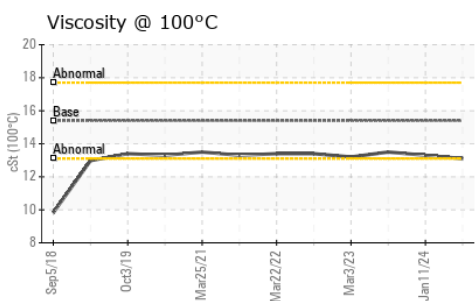
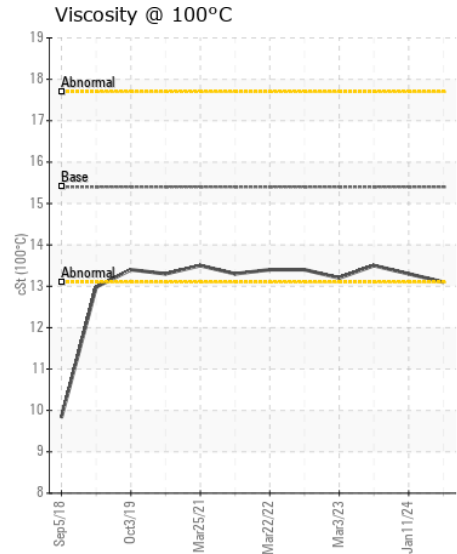
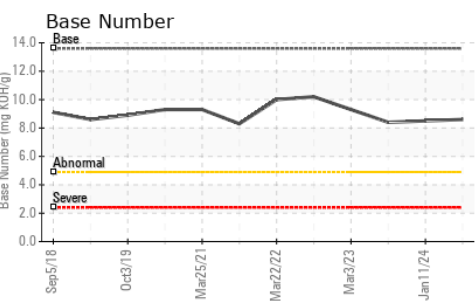
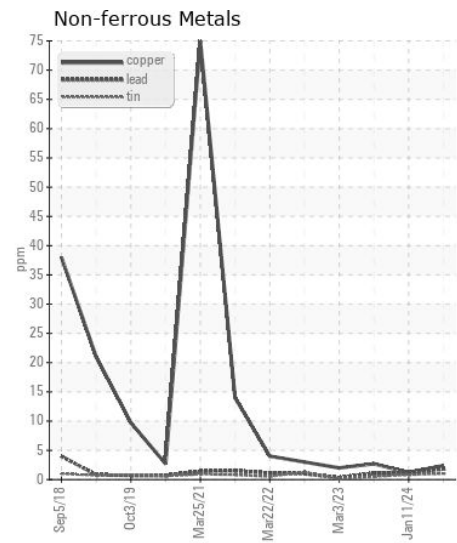
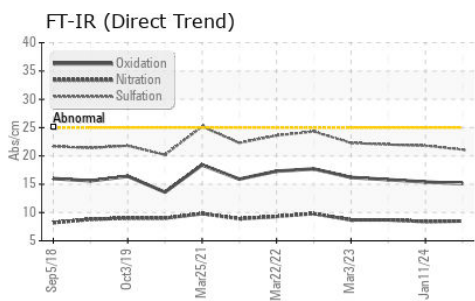
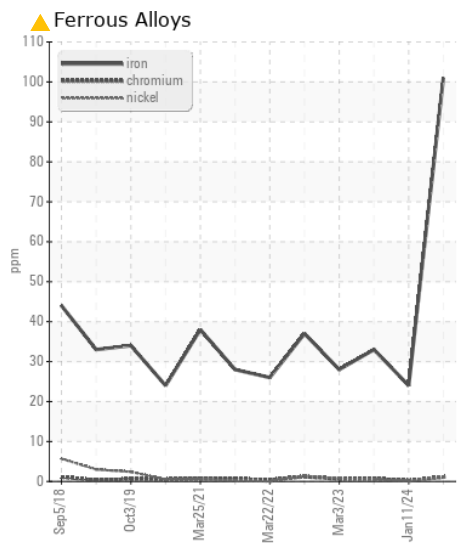
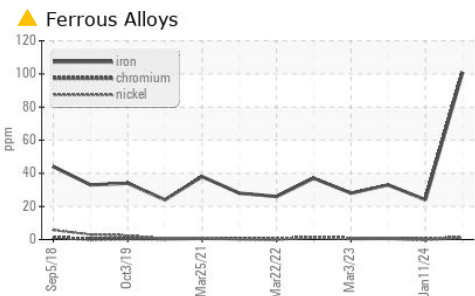
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	10	9	11
Potassium	ppm	ASTM D5185m	>20	3	2	2
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	0.3	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.5	8.4	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	21.8	22.0
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	4	3	3
Boron	ppm	ASTM D5185m		260	218	190
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		259	269	269
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		824	852	827
Calcium	ppm	ASTM D5185m		1437	1435	1471
Phosphorus	ppm	ASTM D5185m		941	978	909
Zinc	ppm	ASTM D5185m		1124	1150	1130
Sulfur	ppm	ASTM D5185m		3606	3062	3105
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	15.4	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.6	8.5	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.3	13.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0040304 **Received** : 29 May 2024
Lab Number : 06193634 **Tested** : 30 May 2024
Unique Number : 11050386 **Diagnosed** : 30 May 2024 - Sean Felton
Test Package : CONST (Additional Tests: TBN)

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Certificate L2367
 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)