



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
Store 2 - Beaver [Ro#147941]
 Machine Id
JOHN DEERE 332G 1T0332GMJMF394269
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 0W40 (3 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Installed new engine. Sampled new oil)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0048897	LEC0046770	LEC0042563
Sample Date		Client Info		19 Apr 2024	16 Feb 2024	03 Jul 2023
Machine Age	hrs	Client Info		3209	3208	2960
Oil Age	hrs	Client Info		1	228	1720
Filter Age	hrs	Client Info		1	228	1720
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	5	27	20
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	1	5
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	4	9	<1
Lead	ppm	ASTM D5185m	>26	0	0	0
Copper	ppm	ASTM D5185m	>26	4	10	6
Tin	ppm	ASTM D5185m	>4	0	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Elemental level of silicon (Si) above normal indicating ingress of seal material.

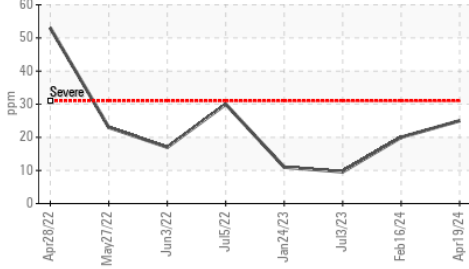
Silicon	ppm	ASTM D5185m	>120	▲ 25	▲ 20	10
Potassium	ppm	ASTM D5185m	>20	2	4	2
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.5	0.8
Nitration	Abs/cm	*ASTM D7624	>20	5.3	9.3	12.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	27.9	26.4
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

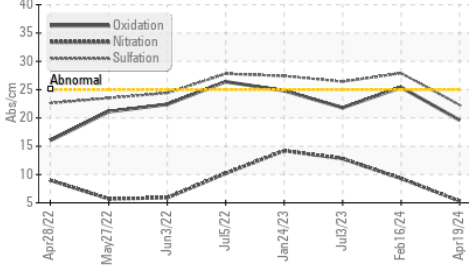
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>31	3	2	4
Boron	ppm	ASTM D5185m		248	311	68
Barium	ppm	ASTM D5185m		1	5	0
Molybdenum	ppm	ASTM D5185m		229	394	52
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		705	1196	603
Calcium	ppm	ASTM D5185m		1578	2242	2231
Phosphorus	ppm	ASTM D5185m		826	1337	1276
Zinc	ppm	ASTM D5185m		985	1635	1540
Sulfur	ppm	ASTM D5185m		3606	4507	4433
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.6	25.4	21.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	8.9	7.6	9.5
Visc @ 100°C	cSt	ASTM D445	14	13.6	14.4	16.2

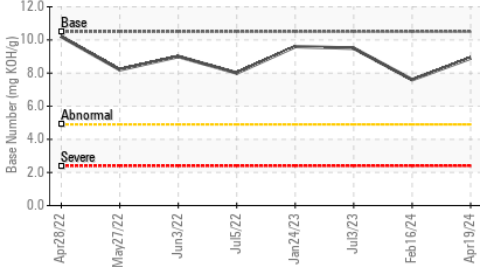
▲ Silicon (ppm)



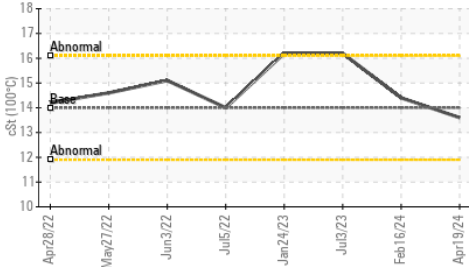
FT-IR (Direct Trend)



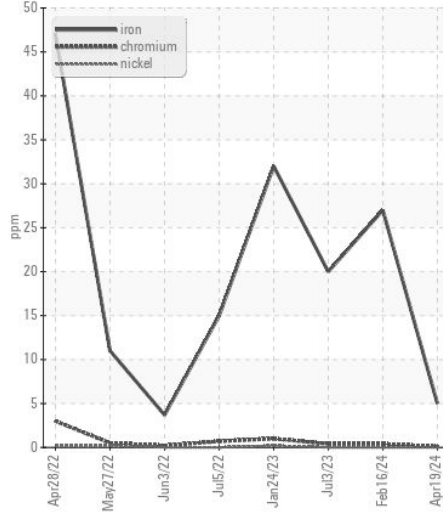
Base Number



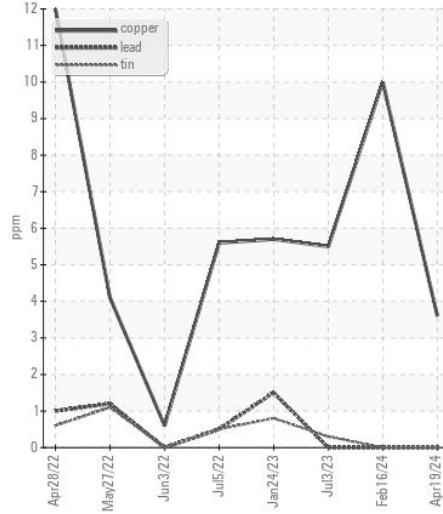
Viscosity @ 100°C



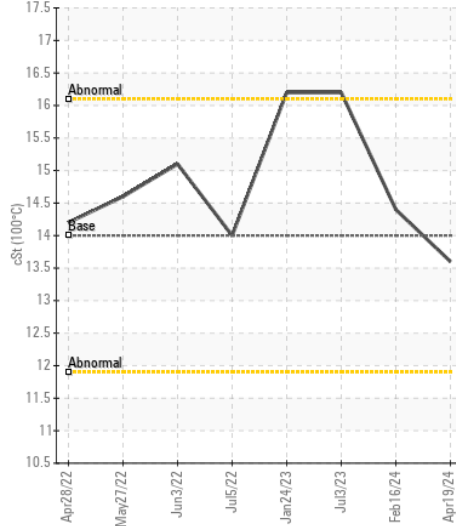
Ferrous Alloys



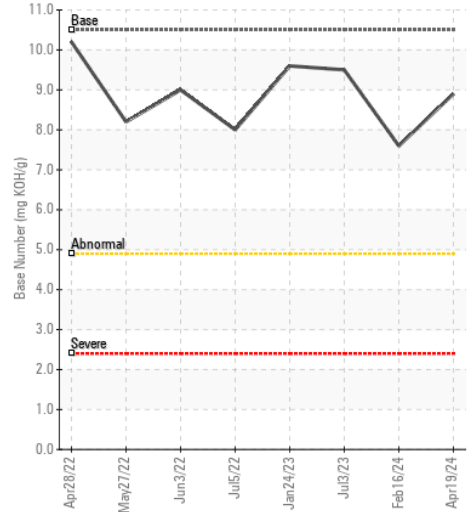
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0048897 **Received** : 23 Apr 2024
Lab Number : 06158266 **Tested** : 24 Apr 2024
Unique Number : 10993689 **Diagnosed** : 25 Apr 2024 - Angela Borella
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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