LESLIE EQUIPMENT CO.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ATTENTION

Area
Store 2 - Beaver [RO#137788]
Machine Id
JOHN DEERE 410E 1DW410EBCNF713827
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (11 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

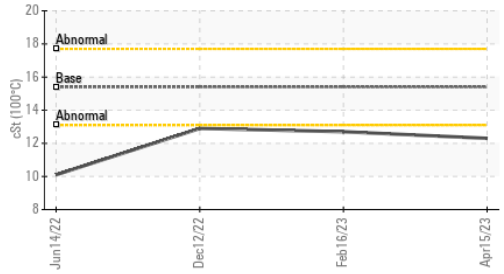
Light fuel dilution occurring.

FLUID CONDITION

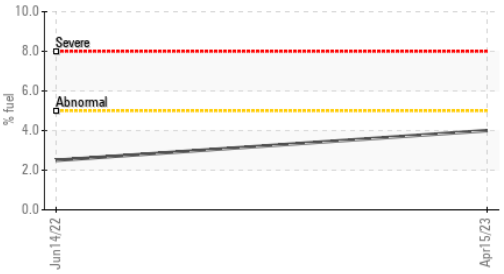
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0038673	LEC0038713	LEC0035930
Sample Date		Client Info		15 Apr 2023	16 Feb 2023	12 Dec 2022
Machine Age	hrs	Client Info		2222	1775	1217
Oil Age	hrs	Client Info		447	558	914
Filter Age	hrs	Client Info		447	558	914
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	MARGINAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	18	18	16
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	<1	3	4
Lead	ppm	ASTM D5185m	>26	6	10	6
Copper	ppm	ASTM D5185m	>26	30	▲ 78	▲ 175
Tin	ppm	ASTM D5185m	>4	3	5	6
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>!20	6	6	5
Potassium	ppm	ASTM D5185m	>20	2	1	<1
Fuel	%	ASTM D3524	>5	▲ 4.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.6	10.3	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	24.4	24.1
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	>0.21	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>31	3	5	3
Boron	ppm	ASTM D5185m		131	110	97
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		243	238	144
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		754	792	553
Calcium	ppm	ASTM D5185m		1364	1450	1766
Phosphorus	ppm	ASTM D5185m		819	795	930
Zinc	ppm	ASTM D5185m		1004	1008	1169
Sulfur	ppm	ASTM D5185m		2765	3151	3394
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1	20.1	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.7	7.2	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.3	12.7	12.9

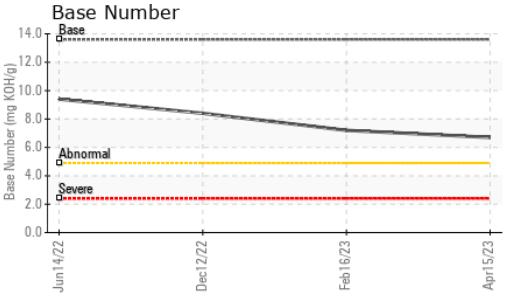
Viscosity @ 100°C



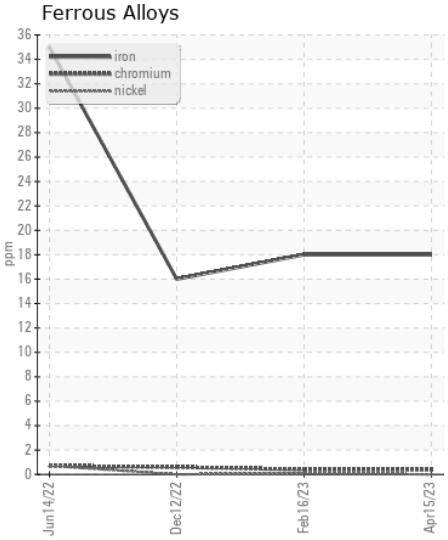
Fuel Dilution



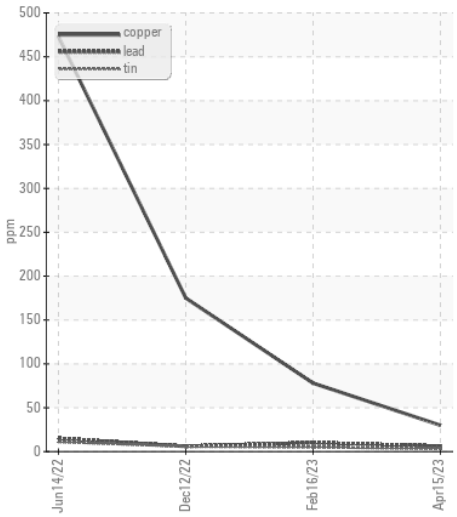
Base Number



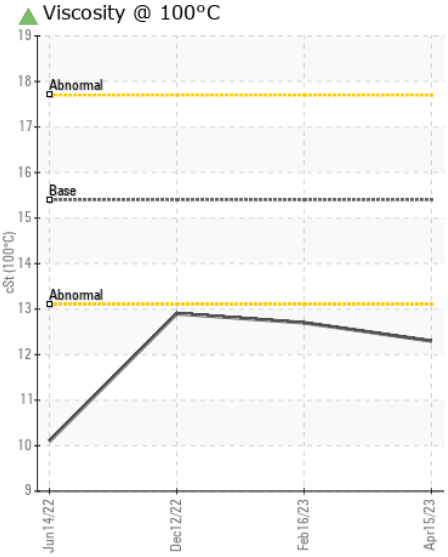
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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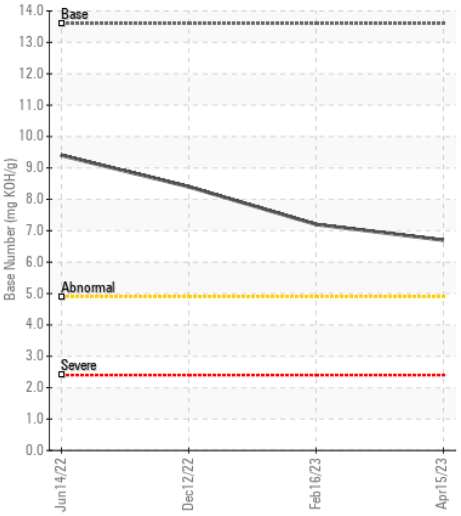

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0038673 **Recieved** : 19 Apr 2023
Lab Number : 05823678 **Diagnosed** : 21 Apr 2023
Unique Number : 10431761 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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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