



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

Store 9 - Marietta [RO#146952]

Machine Id

JOHN DEERE 950K 1T0950KPAJF339847

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0046875	LEC0043464	LEC0041512
Sample Date		Client Info		11 Jan 2024	04 Oct 2023	16 Jun 2023
Machine Age	hrs	Client Info		2555	2034	1402
Oil Age	hrs	Client Info		521	632	513
Filter Age	hrs	Client Info		521	632	513
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	▲ 175	51	47
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>4	1	<1	1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	3	5
Lead	ppm	ASTM D5185m	>40	1	1	<1
Copper	ppm	ASTM D5185m	>330	20	81	3
Tin	ppm	ASTM D5185m	>15	2	2	<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

There is no indication of any contamination in the oil.

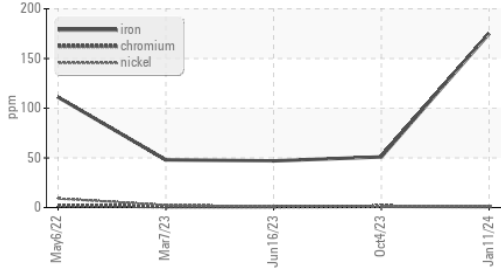
Silicon	ppm	ASTM D5185m	>120	11	12	9
Potassium	ppm	ASTM D5185m	>20	2	2	<1
Fuel	%	ASTM D3524	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.9	8.7	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	21.7	21.5
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

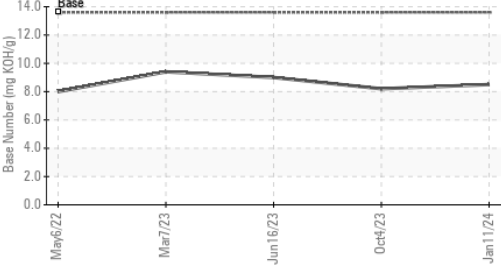
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	1	2
Boron	ppm	ASTM D5185m		210	211	209
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		268	289	242
Manganese	ppm	ASTM D5185m		2	<1	1
Magnesium	ppm	ASTM D5185m		859	829	853
Calcium	ppm	ASTM D5185m		1384	1474	1571
Phosphorus	ppm	ASTM D5185m		944	938	926
Zinc	ppm	ASTM D5185m		1126	1153	1161
Sulfur	ppm	ASTM D5185m		2882	3254	3685
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.2	16.0	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.5	8.2	9.0
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	12.7	12.8

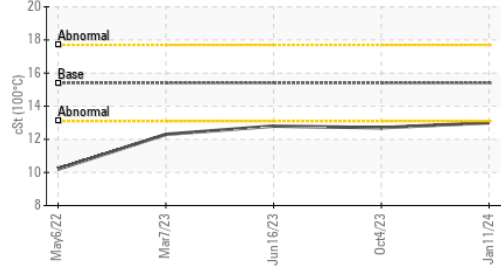
▲ Ferrous Alloys



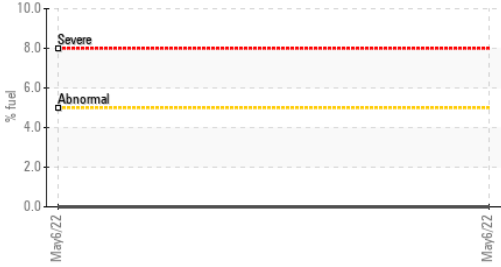
Base Number



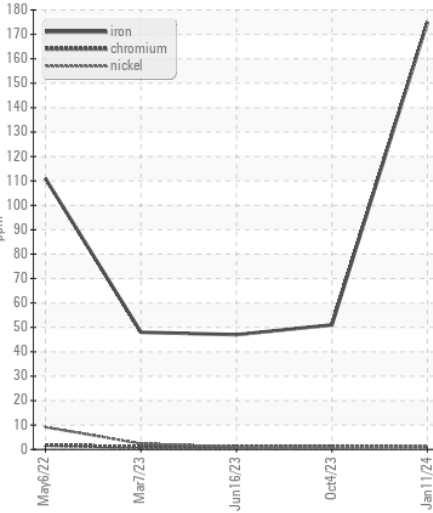
Viscosity @ 100°C



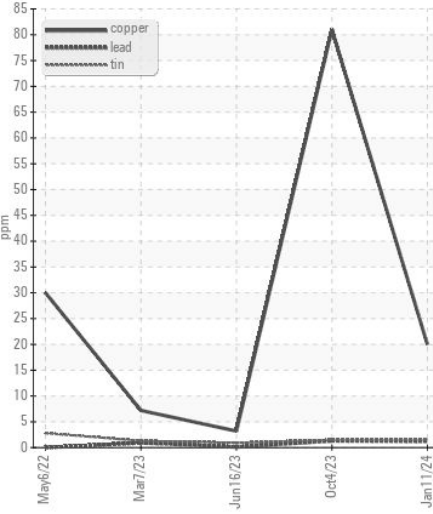
Fuel Dilution



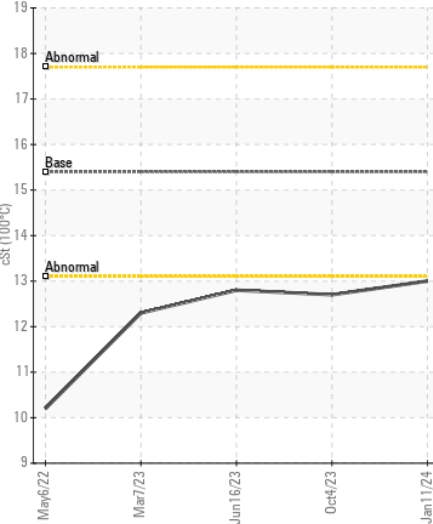
▲ Ferrous Alloys



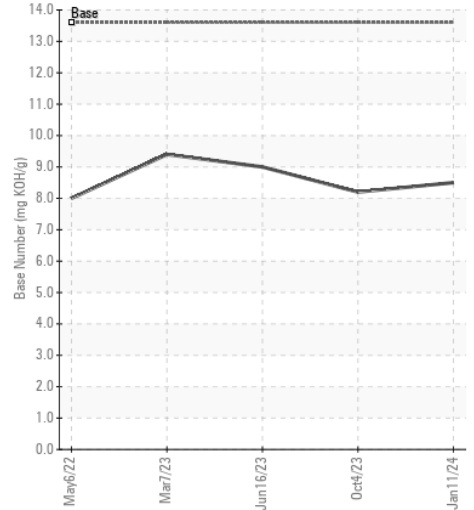
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0046875 **Received** : 16 Jan 2024
Lab Number : 06060846 **Diagnosed** : 17 Jan 2024
Unique Number : 10832228 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, 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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