



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 5 - Cross Lanes
Machine Id
JOHN DEERE 210G EX46 (S/N 1FF210GXCJF526281)
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (6 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0049308	LEC0045448	LEC0041782
Sample Date		Client Info		10 Jun 2024	02 Nov 2023	06 Jul 2023
Machine Age	hrs	Client Info		4122	3570	3090
Oil Age	hrs	Client Info		500	480	480
Filter Age	hrs	Client Info		500	480	480
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	31	32	28
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	6	6	5
Lead	ppm	ASTM D5185m	>26	0	0	0
Copper	ppm	ASTM D5185m	>26	<1	6	4
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	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.

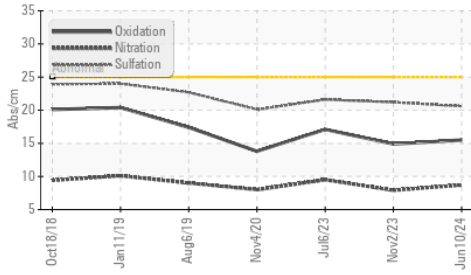
Silicon	ppm	ASTM D5185m	>120	6	7	6
Potassium	ppm	ASTM D5185m	>20	1	1	0
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.6	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.7	7.9	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.6	21.2	21.6
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

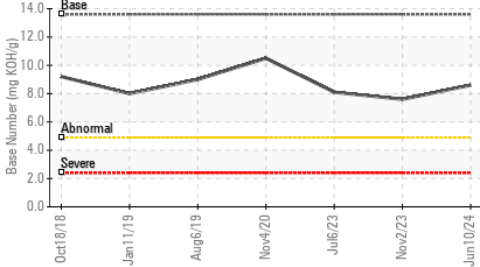
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	3	3	2
Boron	ppm	ASTM D5185m		70	261	20
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		65	84	87
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		828	536	1018
Calcium	ppm	ASTM D5185m		1242	1556	1370
Phosphorus	ppm	ASTM D5185m		1082	1091	1132
Zinc	ppm	ASTM D5185m		1283	1328	1426
Sulfur	ppm	ASTM D5185m		3581	3620	3818
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	14.9	17.1
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.6	7.6	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.7	13.7

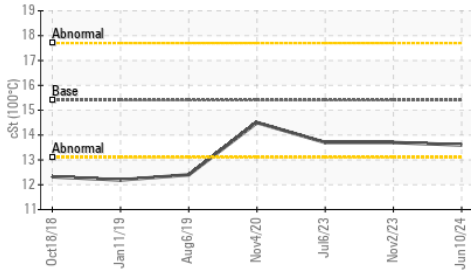
FT-IR (Direct Trend)



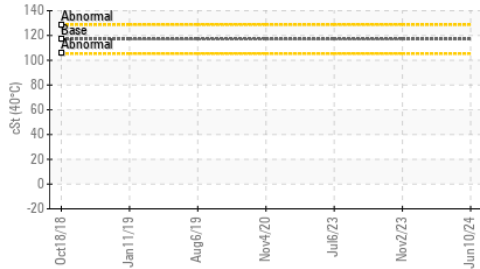
Base Number



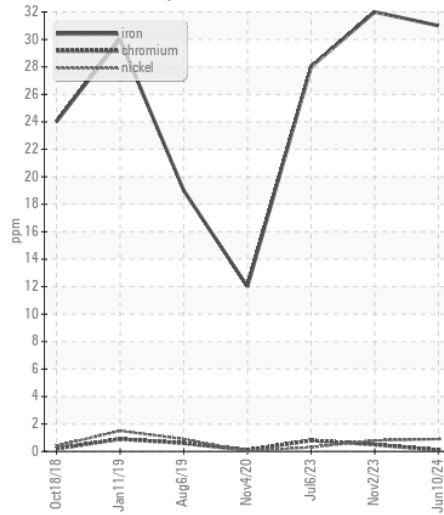
Viscosity @ 100°C



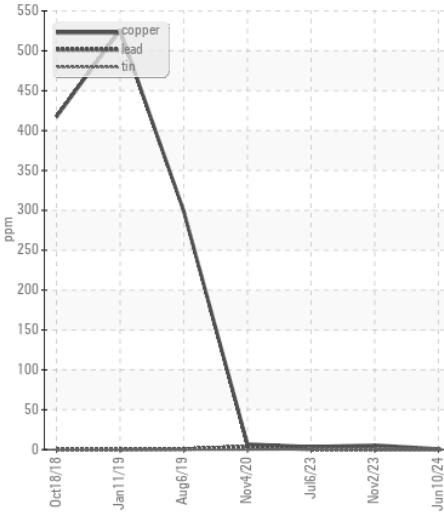
Viscosity @ 40°C



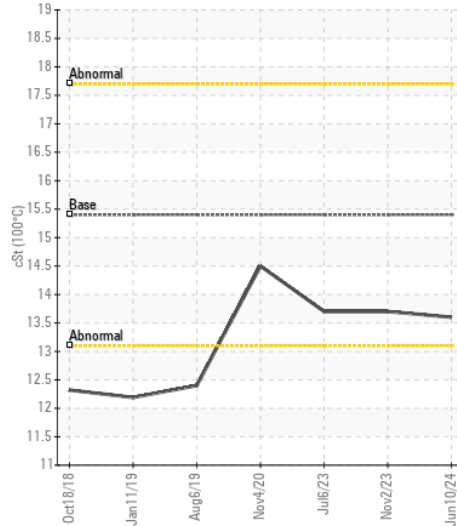
Ferrous Alloys



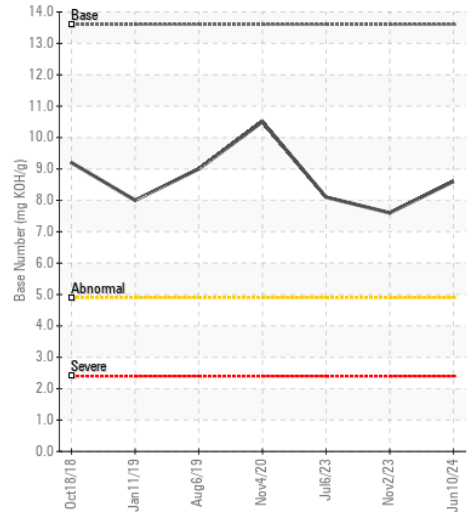
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0049308 **Received** : 03 Jul 2024
Lab Number : 06227159 **Tested** : 05 Jul 2024
Unique Number : 11110652 **Diagnosed** : 05 Jul 2024 - Don Baldridge
Test Package : CONST (Additional Tests: TBN, KV40)

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 2946 E MAIN ST
 BRIDGEPORT, WV
 US 26330
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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)