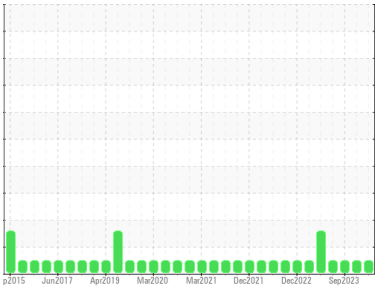
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
[W49982]
Machine Id
JOHN DEERE 824K 1DW824KXCED662971
Component
Hydraulic System
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**JR0199704**	JR0179786	JR0180219
Sample Date		Client Info		**21 Feb 2024**	20 Oct 2023	01 Sep 2023
Machine Age	hrs	Client Info		**14501**	14036	13600
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.075	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	**9**	11	15
Iron	ppm	ASTM D5185m	>71	**2**	8	5
Chromium	ppm	ASTM D5185m	>11	**4**	4	3
Nickel	ppm	ASTM D5185m	>6	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>11	**<1**	2	2
Lead	ppm	ASTM D5185m	>13	**0**	<1	0
Copper	ppm	ASTM D5185m	>21	**1**	3	2
Tin	ppm	ASTM D5185m	>5	**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**37**	85	64
Barium	ppm	ASTM D5185m		**0**	3	0
Molybdenum	ppm	ASTM D5185m		**47**	86	67
Manganese	ppm	ASTM D5185m		**<1**	0	<1
Magnesium	ppm	ASTM D5185m		**363**	562	560
Calcium	ppm	ASTM D5185m		**922**	1535	1833
Phosphorus	ppm	ASTM D5185m		**767**	971	969
Zinc	ppm	ASTM D5185m		**981**	1088	1162
Sulfur	ppm	ASTM D5185m		**2391**	3421	3978

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>24	**3**	7	4
Sodium	ppm	ASTM D5185m	>21	**0**	0	2
Potassium	ppm	ASTM D5185m	>20	**0**	2	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>80000	**47073**	31895	16321
Particles >6µm		ASTM D7647	>5000	**672**	304	345
Particles >14µm		ASTM D7647	>640	**15**	18	29
Particles >21µm		ASTM D7647	>160	**5**	4	10
Particles >38µm		ASTM D7647	>40	**0**	0	1
Particles >71µm		ASTM D7647	>10	**0**	0	1
Oil Cleanliness		ISO 4406 (c)	>23/19/16	**23/17/11**	22/15/11	21/16/12

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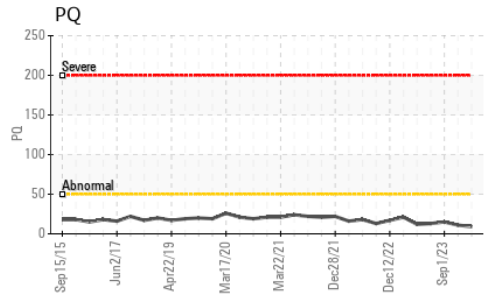
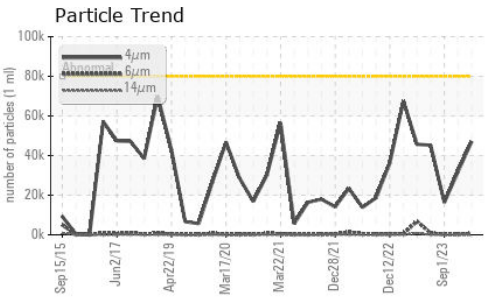
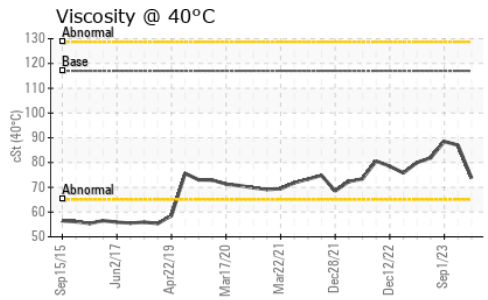
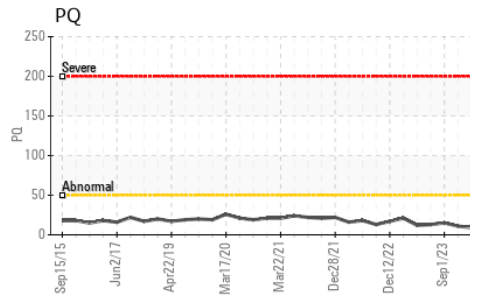
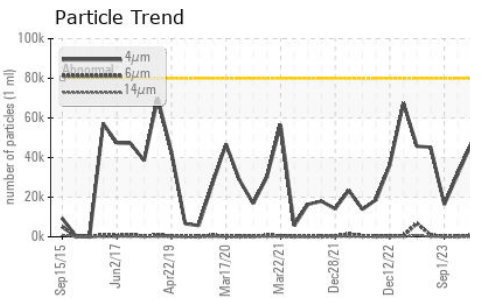








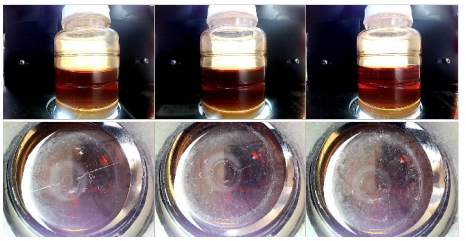


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.18**	1.44	1.64

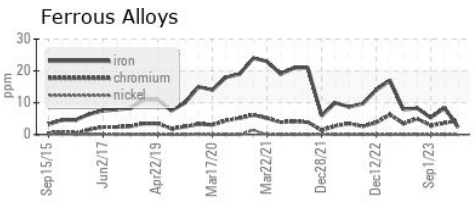
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

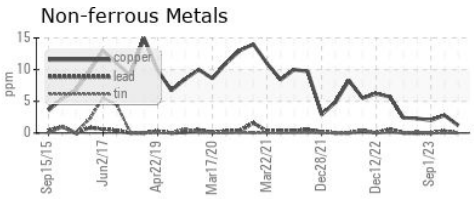
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	117	**73.7**	87.0	88.5

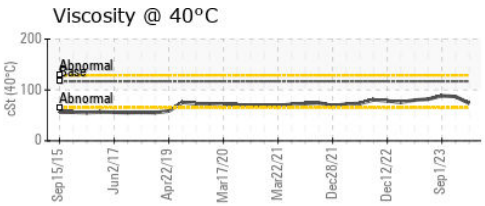
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

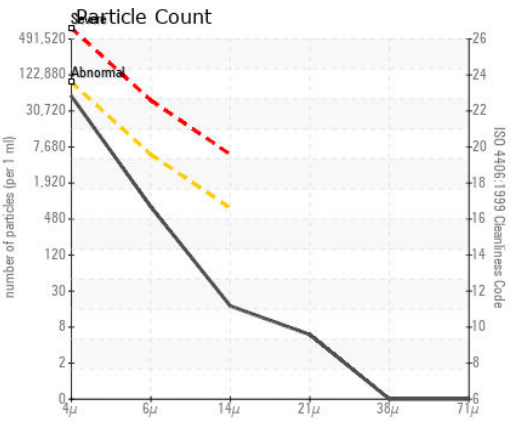


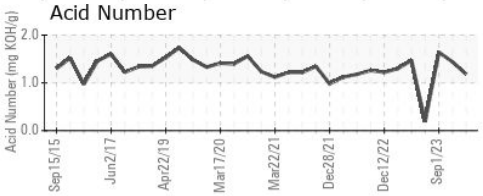
GRAPHS











Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0199704
Lab Number : 06101527
Unique Number : 10899757
Test Package : CONST (Additional Tests: PQ)

Received : 27 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 29 Feb 2024 - Jonathan Hester

Certificate L2367

JRE - ASHLAND
11047 LEADBETTER RD
ASHLAND, VA
US 23005
Contact: DAVID ZIEG
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T: (804)798-6001
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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)