



WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 644K 1DW644KZLED664203
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0213572	JR0020188	JRMC432069
Sample Date		Client Info		24 Apr 2024	21 Jan 2021	03 Feb 2017
Machine Age	hrs	Client Info		9482	7393	3082
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	13	16	16
Iron	ppm	ASTM D5185m	>71	5	3	10
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>6	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>11	2	1	4
Lead	ppm	ASTM D5185m	>13	0	<1	<1
Copper	ppm	ASTM D5185m	>21	7	2	3
Tin	ppm	ASTM D5185m	>5	0	0	<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

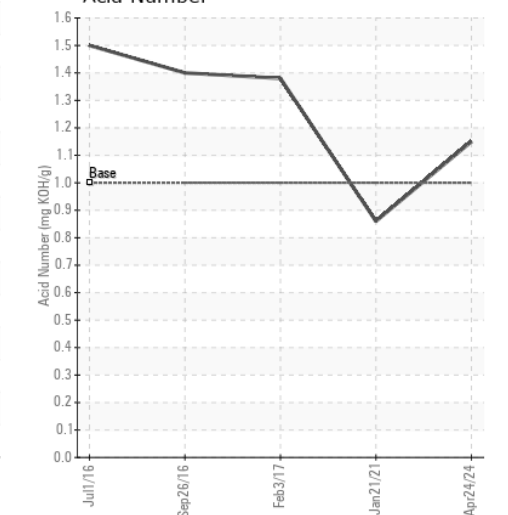
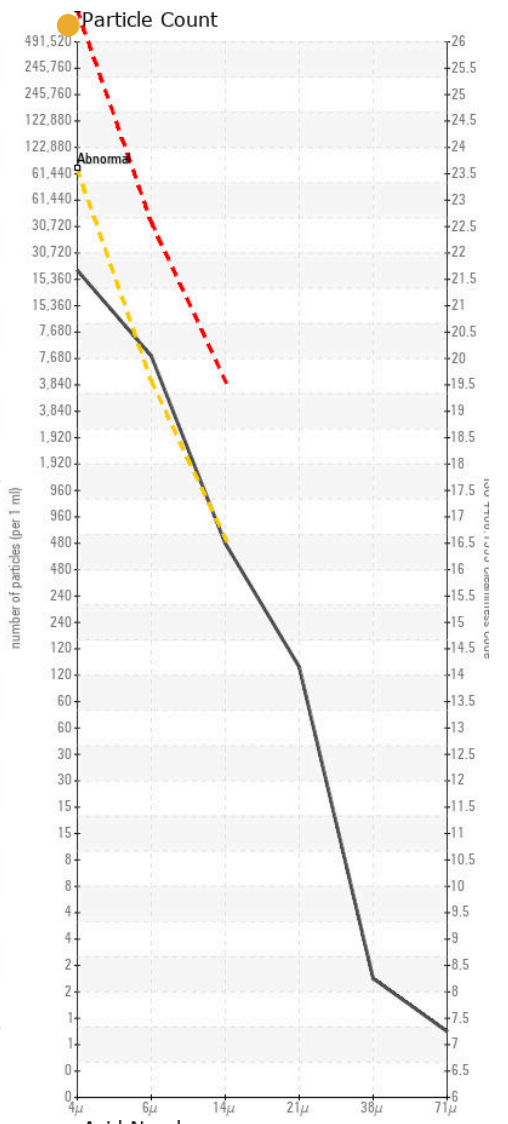
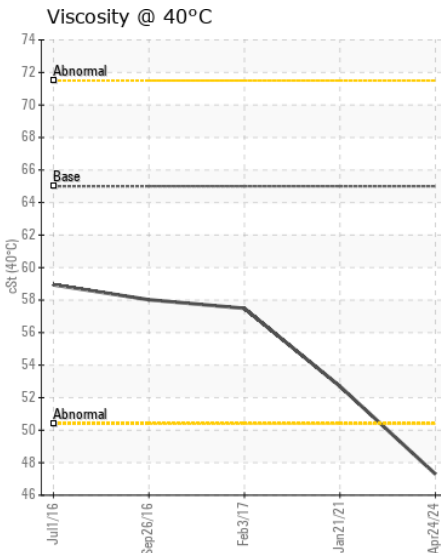
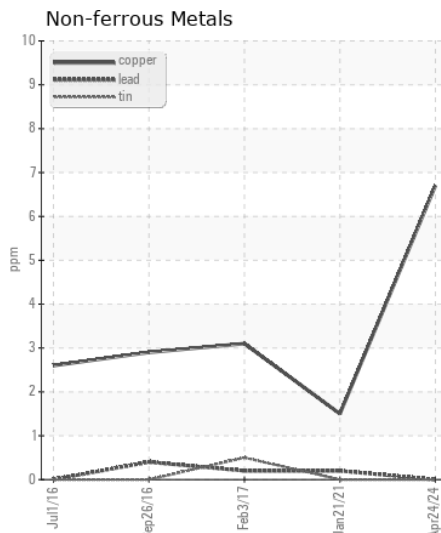
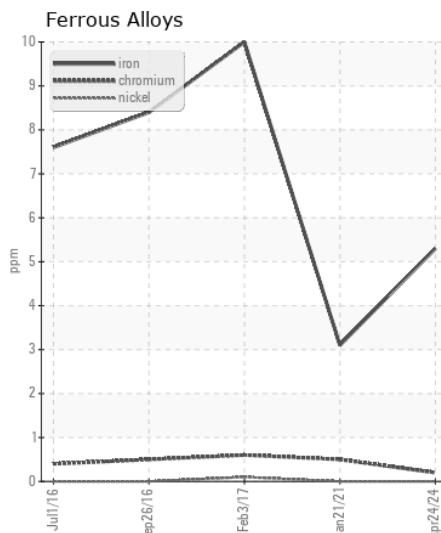
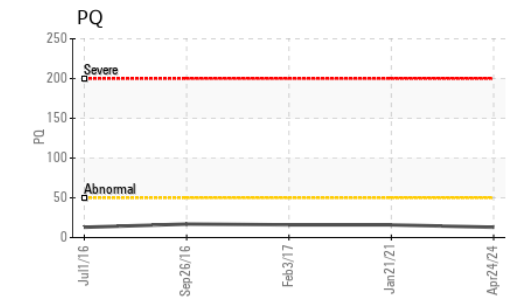
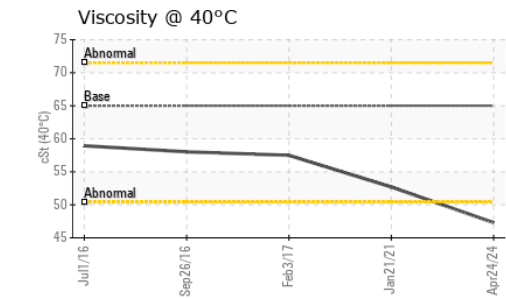
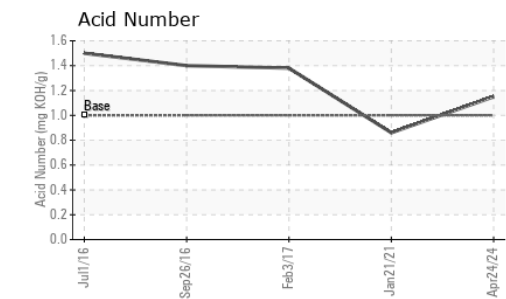
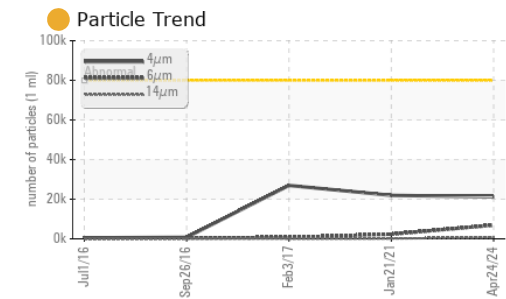
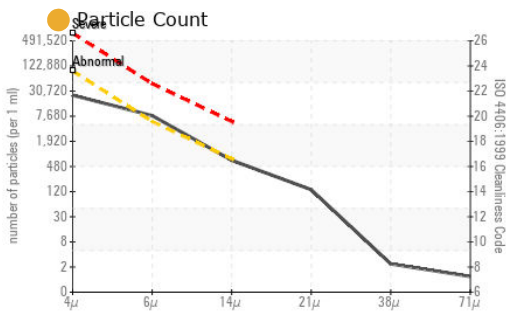
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>24	5	2	14
Potassium	ppm	ASTM D5185m	>20	2	<1	2
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	21221	21942	26954
Particles >6µm		ASTM D7647	>5000	6912	2338	670
Particles >14µm		ASTM D7647	>640	595	150	31
Particles >21µm		ASTM D7647	>160	118	28	5
Particles >38µm		ASTM D7647	>40	2	1	0
Particles >71µm		ASTM D7647	>10	1	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	22/20/16	22/18/14	22/17/12
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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>21	3	2	4
Boron	ppm	ASTM D5185m		2	3	24
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		4	<1	20
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		36	32	278
Calcium	ppm	ASTM D5185m	87	2266	1267	2225
Phosphorus	ppm	ASTM D5185m	727	966	745	1027
Zinc	ppm	ASTM D5185m	900	1083	919	1153
Sulfur	ppm	ASTM D5185m	1500	3652	1950	1964
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	1.15	0.860	1.38
Visc @ 40°C	cSt	ASTM D445	65	47.3	52.7	57.49



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0213572 **Received** : 25 Apr 2024
Lab Number : 06160262 **Tested** : 26 Apr 2024
Unique Number : 10995685 **Diagnosed** : 26 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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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)