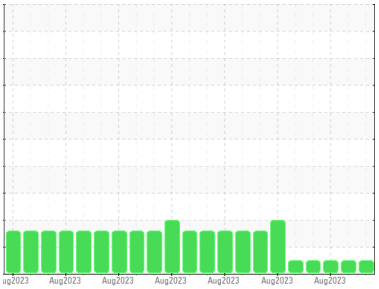
OIL ANALYSIS REPORT

Sample Rating Trend



UNKNOWN

Area
WCLSNC
Machine Id
QC230801HY
Component
Hydraulic System
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0844507**	WC0844506	WC0844505
Sample Date		Client Info		**30 Aug 2023**	29 Aug 2023	28 Aug 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**---**	---	---

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>47	**31**	29	24
Iron	ppm	ASTM D5185m	>78	**53**	59	55
Chromium	ppm	ASTM D5185m	>2	**<1**	1	<1
Nickel	ppm	ASTM D5185m	>3	**1**	2	2
Titanium	ppm	ASTM D5185m	>2	**0**	<1	0
Silver	ppm	ASTM D5185m	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>5	**4**	3	3
Lead	ppm	ASTM D5185m	>11	**9**	11	9
Copper	ppm	ASTM D5185m	>84	**86**	75	79
Tin	ppm	ASTM D5185m	>4	**2**	3	2
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6	**118**	112	107
Barium	ppm	ASTM D5185m	0	**3**	0	2
Molybdenum	ppm	ASTM D5185m	0	**<1**	<1	<1
Manganese	ppm	ASTM D5185m		**15**	16	15
Magnesium	ppm	ASTM D5185m	145	**21**	30	20
Calcium	ppm	ASTM D5185m	3570	**3737**	3511	3563
Phosphorus	ppm	ASTM D5185m	1290	**1196**	1156	1148
Zinc	ppm	ASTM D5185m	1640	**1444**	1449	1385
Sulfur	ppm	ASTM D5185m		**3792**	3945	3478

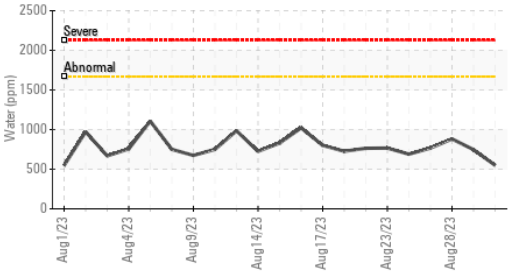
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>11	**7**	9	7
Sodium	ppm	ASTM D5185m	>23	**13**	19	13
Potassium	ppm	ASTM D5185m	>20	**2**	2	3
Water	%	ASTM D6304	>0.1669	**0.054**	0.074	0.088
ppm Water	ppm	ASTM D6304	>1669	**549.0**	746.8	881.8

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**---**	---	---
Particles >6µm		ASTM D7647	>1300	**---**	---	---
Particles >14µm		ASTM D7647	>160	**---**	---	---
Particles >21µm		ASTM D7647	>40	**---**	---	---
Particles >38µm		ASTM D7647	>10	**---**	---	---
Particles >71µm		ASTM D7647	>3	**---**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**---**	---	---

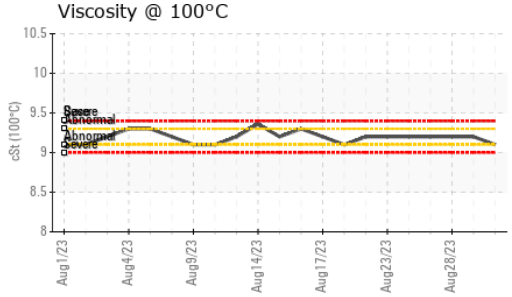
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	**0.98**	0.966	0.74

OIL ANALYSIS REPORT

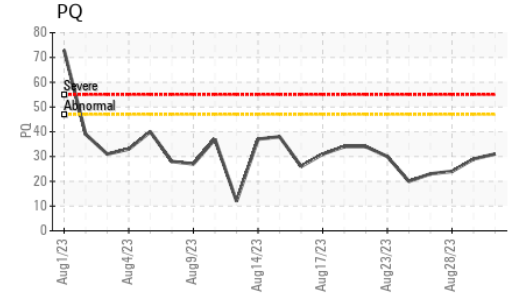
Water (KF)



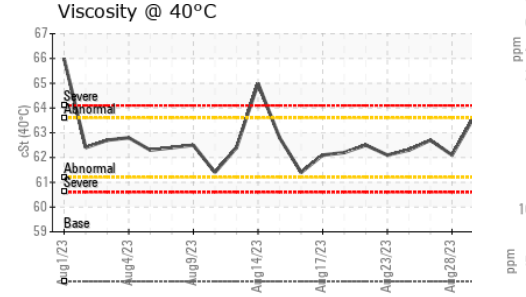
Viscosity @ 100°C



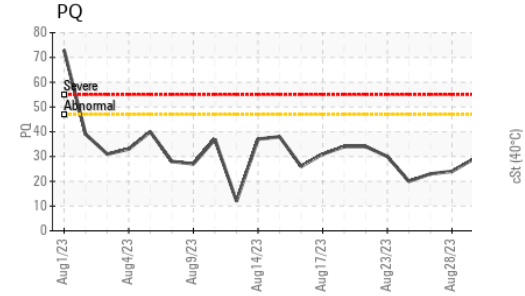
PQ



Viscosity @ 40°C



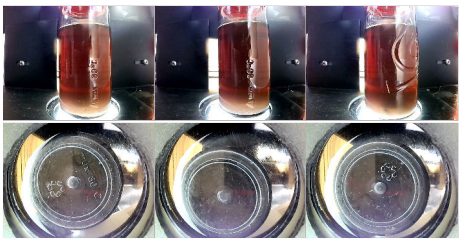
PQ



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	▲ HEAVY
Debris	scalar	*Visual	NONE	**NONE**	▲ HEAVY	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	>0.1669	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

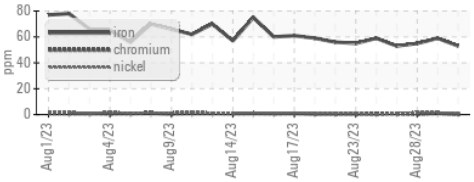
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	57.0	**62.1**	63.6	62.1
Visc @ 100°C	cSt	ASTM D445	9.4	**9.1**	9.2	9.2
Viscosity Index (VI)	Scale	ASTM D2270	147	▲ **123**	▲ 122	126

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

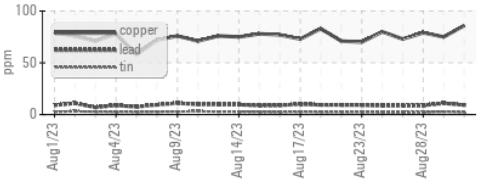


GRAPHS

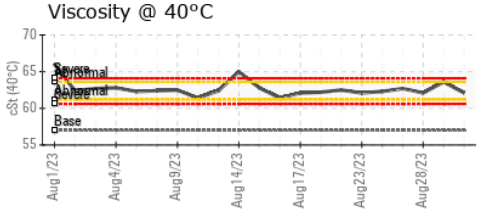
Ferrous Alloys



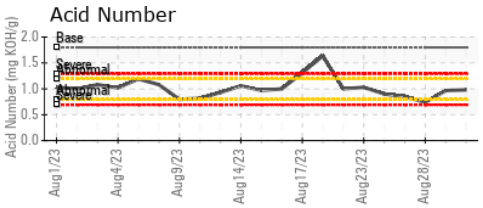
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0844507 **Received** : 30 Aug 2023
Lab Number : 05938265 **Diagnosed** : 30 Oct 2023
Unique Number : 10628877 **Diagnostician** : System
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, VI)

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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