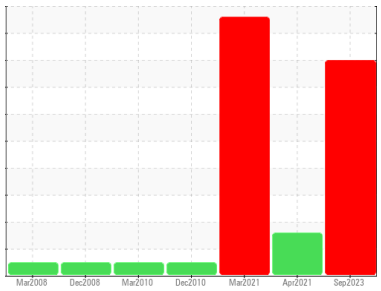
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
JOHN DEERE JOHN DEERE 4450
Component
Diesel Engine
Fluid
CHEVRON URSA SUPER PLUS EC 15W40 (17 QTS)

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KL0007956**	KLM2339014	KLM2339261
Sample Date		Client Info		**24 Sep 2023**	26 Apr 2021	17 Mar 2021
Machine Age	hrs	Client Info		**1809**	1627	7601
Oil Age	hrs	Client Info		**242**	60	1601
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**SEVERE**	ABNORMAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>2.1	**<1.0**	<1.0	<1.0
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	**202**	130	630
Chromium	ppm	ASTM D5185m	>11	**2**	2	8
Nickel	ppm	ASTM D5185m	>5	**3**	3	9
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>31	**5**	3	4
Lead	ppm	ASTM D5185m	>26	**9**	4	11
Copper	ppm	ASTM D5185m	>26	**5**	3	16
Tin	ppm	ASTM D5185m	>4	**<1**	0	4
Antimony	ppm	ASTM D5185m		**---**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	<1

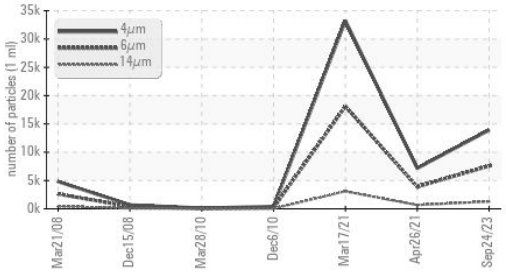
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**253**	212	188
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**97**	75	123
Manganese	ppm	ASTM D5185m		**2**	1	5
Magnesium	ppm	ASTM D5185m		**195**	183	261
Calcium	ppm	ASTM D5185m		**2517**	2414	2549
Phosphorus	ppm	ASTM D5185m	1200	**1116**	930	1210
Zinc	ppm	ASTM D5185m	1300	**1350**	1134	1461
Sulfur	ppm	ASTM D5185m		**4950**	3340	3222

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	**8**	6	16
Sodium	ppm	ASTM D5185m	>31	**2**	3	6
Potassium	ppm	ASTM D5185m	>20	**2**	4	<1

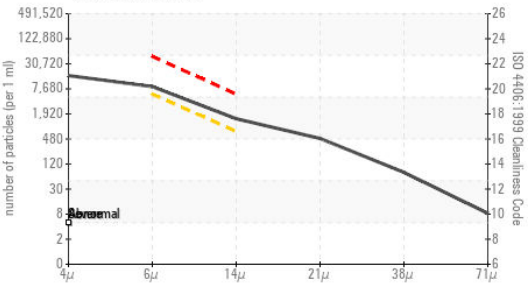
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.9**	0.7	3.2
Nitration	Abs/cm	*ASTM D7624	>20	**10.1**	9.1	19.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	**22.4**	24	40.2

OIL ANALYSIS REPORT

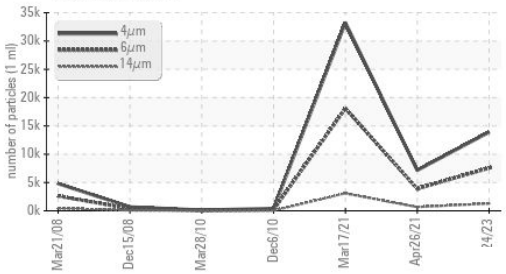
Particle Trend



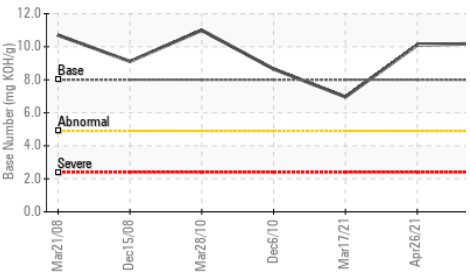
Particle Count



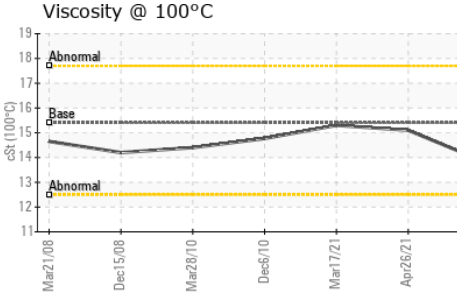
Particle Trend



Base Number



Viscosity @ 100°C



FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**13902**	7163	33224
Particles >6µm		ASTM D7647	>5000	▲ **7573**	3902	▲ 18099
Particles >14µm		ASTM D7647	>640	▲ **1289**	▲ 664	▲ 3080
Particles >21µm		ASTM D7647	>160	▲ **434**	▲ 224	▲ 1038
Particles >38µm		ASTM D7647	>40	▲ **67**	35	▲ 160
Particles >71µm		ASTM D7647	>10	**7**	4	▲ 16
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ **20/17**	▲ 19/17	▲ 21/19

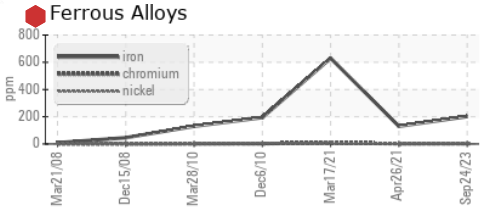
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**20.7**	21.1	44.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.0	**10.21**	10.1	6.96

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	**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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

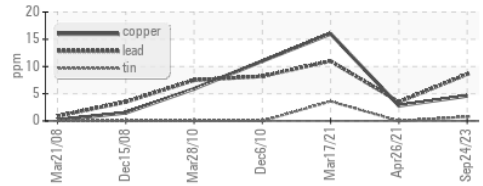
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**13.9**	15.1	15.3

GRAPHS

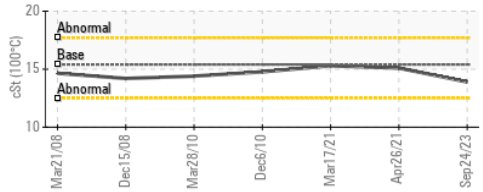
Ferrous Alloys



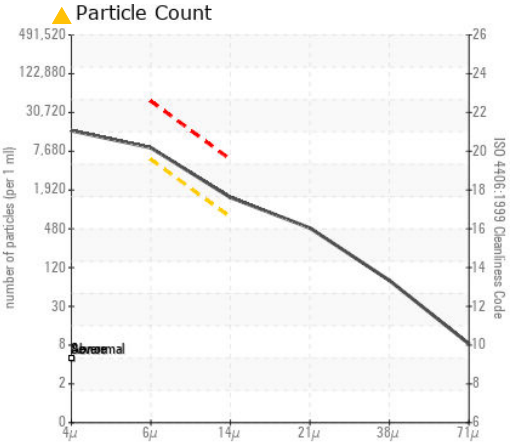
Non-ferrous Metals



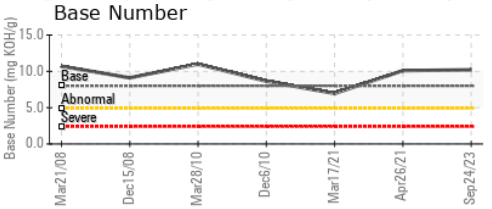
Viscosity @ 100°C



Particle Count



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0007956 **Received** : 02 Oct 2023
Lab Number : 05967177 **Diagnosed** : 04 Oct 2023
Unique Number : 10673728 **Diagnostician** : Don Baldridge
Test Package : MOB 2 (Additional Tests: PrtCount)

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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