James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
[MPG PIPELINE CONTRAC]
Machine Id
JOHN DEERE 300G 1FF300GXENF732026
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

WEAR

All component wear rates are normal.

CONTAMINATION

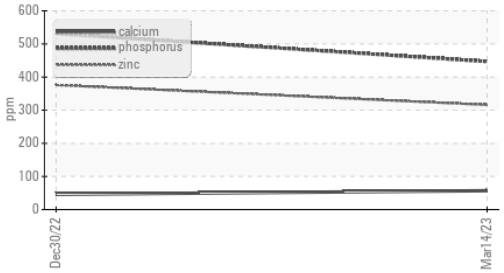
The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

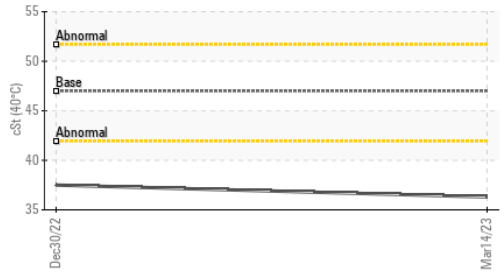
The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Zinc level above manufacturer's recommendations. Confirm oil type. The AN level is acceptable for this fluid.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**JR0159813**	JR0152269	---
Sample Date		Client Info		**14 Mar 2023**	30 Dec 2022	---
Machine Age	hrs	Client Info		**1018**	419	---
Oil Age	hrs	Client Info		**0**	0	---
Filter Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**Not Changd**	Not Changd	---
Filter Changed		Client Info		**Changed**	Not Changd	---
Sample Status				**ABNORMAL**	ABNORMAL	---
PQ		ASTM D8184	>50	**11**	10	---
Iron	ppm	ASTM D5185m	>32	**2**	2	---
Chromium	ppm	ASTM D5185m	>9	**0**	0	---
Nickel	ppm	ASTM D5185m	>5	**0**	0	---
Titanium	ppm	ASTM D5185m		**0**	0	---
Silver	ppm	ASTM D5185m		**0**	0	---
Aluminum	ppm	ASTM D5185m	>9	**0**	<1	---
Lead	ppm	ASTM D5185m	>28	**0**	<1	---
Copper	ppm	ASTM D5185m	>50	**4**	5	---
Tin	ppm	ASTM D5185m	>5	**0**	<1	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Silicon	ppm	ASTM D5185m	>11	**1**	1	---
Potassium	ppm	ASTM D5185m	>20	**0**	2	---
Water		WC Method	>0.075	**NEG**	NEG	---
Particles >4µm		ASTM D7647	>80000	**658**	6039	---
Particles >6µm		ASTM D7647	>20000	**95**	764	---
Particles >14µm		ASTM D7647	>640	**10**	21	---
Particles >21µm		ASTM D7647	>160	**3**	4	---
Particles >38µm		ASTM D7647	>40	**0**	1	---
Particles >71µm		ASTM D7647	>10	**0**	0	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	**17/14/10**	20/17/12	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.075	**NEG**	NEG	---
Sodium	ppm	ASTM D5185m	>21	**<1**	0	---
Boron	ppm	ASTM D5185m		**0**	0	---
Barium	ppm	ASTM D5185m		**0**	1	---
Molybdenum	ppm	ASTM D5185m		**<1**	<1	---
Manganese	ppm	ASTM D5185m		**<1**	<1	---
Magnesium	ppm	ASTM D5185m		▲ **40**	▲ 57	---
Calcium	ppm	ASTM D5185m		**57**	46	---
Phosphorus	ppm	ASTM D5185m	827	**447**	531	---
Zinc	ppm	ASTM D5185m	0	▲ **316**	▲ 376	---
Sulfur	ppm	ASTM D5185m	13	▲ **1838**	▲ 2359	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	**0.39**	0.50	---
Visc @ 40°C	cSt	ASTM D445	47	▲ **36.3**	▲ 37.5	---

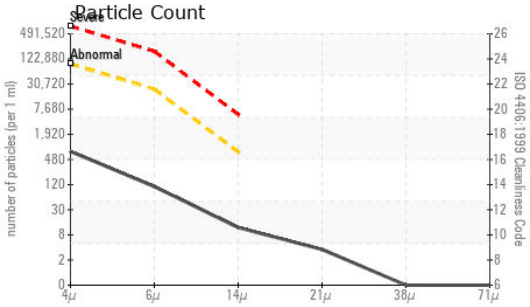
Additives



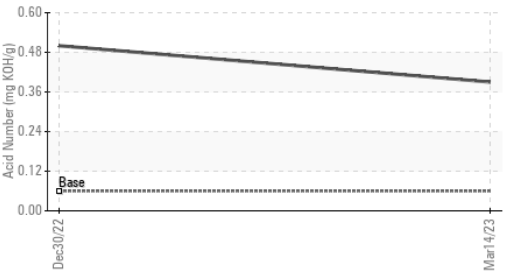
Viscosity @ 40°C



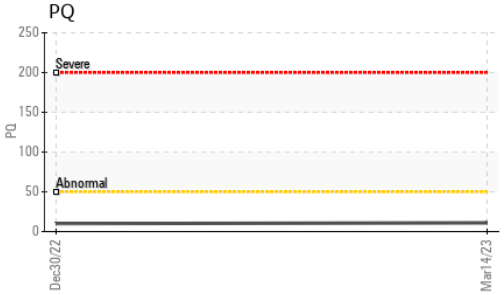
Particle Count



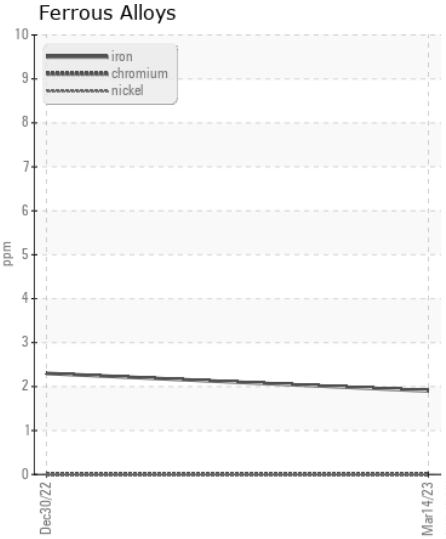
Acid Number



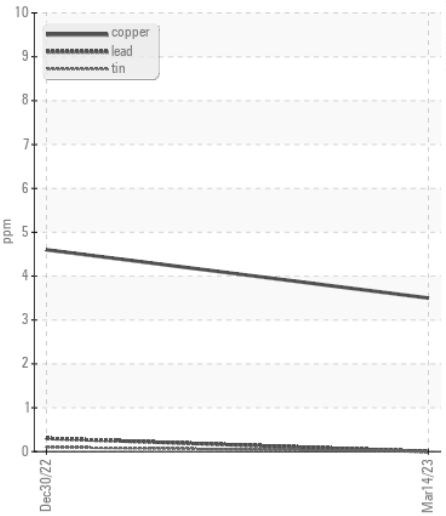
PQ



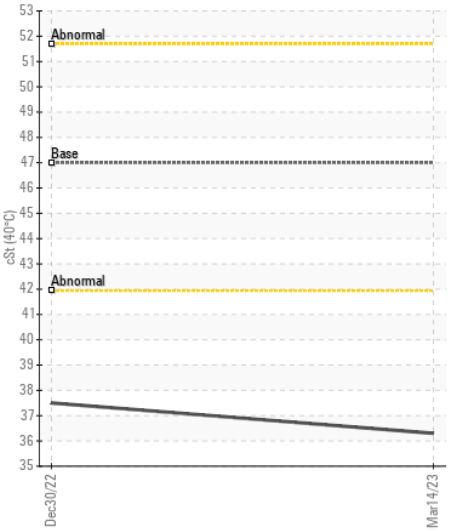
Ferrous Alloys



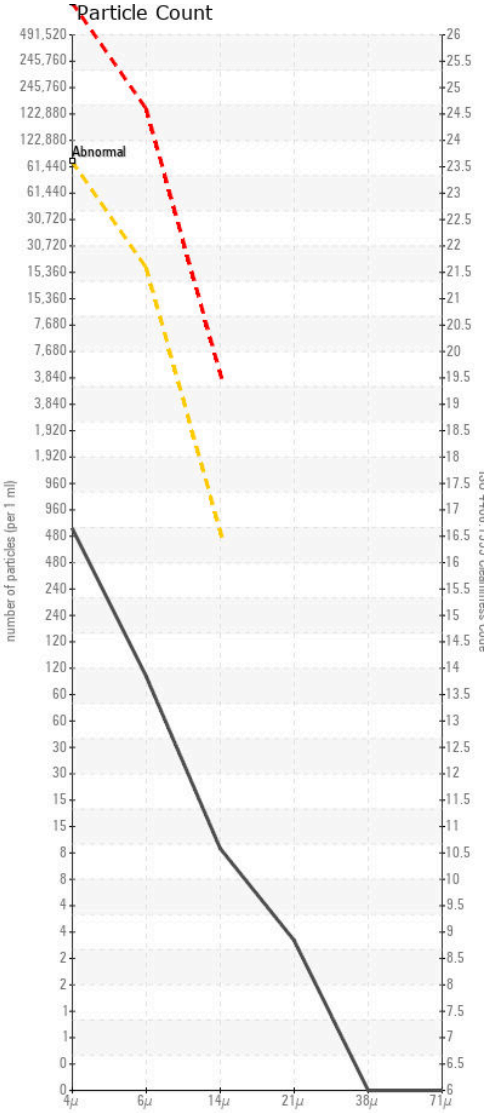
Non-ferrous Metals



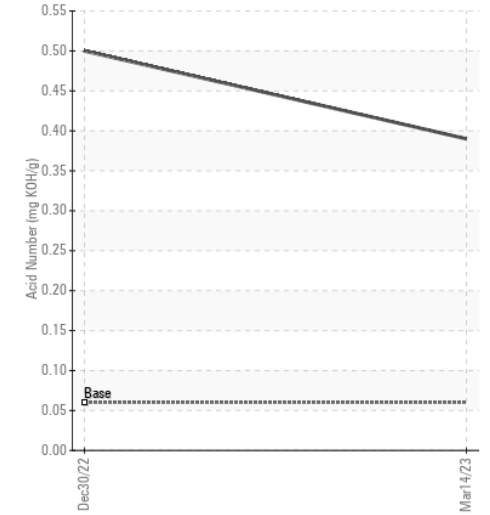
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0159813 **Recieved** : 20 Mar 2023
Lab Number : 05795768 **Diagnosed** : 21 Mar 2023
Unique Number : 10385452 **Diagnostician** : Don Baldridge
Test Package : CONST (Additional Tests: PQ)

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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