James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 85G 1FF085GXVKJ021308
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

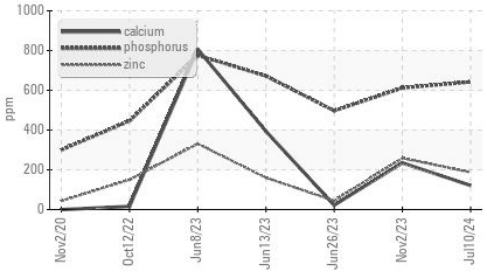
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

FLUID CONDITION

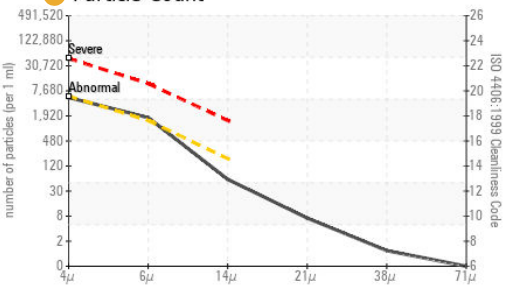
Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**JR0223605**	JR0187324	JR0175379
Sample Date		Client Info		**10 Jul 2024**	02 Nov 2023	26 Jun 2023
Machine Age	hrs	Client Info		**3777**	3391	3225
Oil Age	hrs	Client Info		**0**	0	3
Filter Age	hrs	Client Info		**0**	0	3
Oil Changed		Client Info		**N/A**	N/A	N/A
Filter Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL
PQ		ASTM D8184	>50	**15**	12	16
Iron	ppm	ASTM D5185m	>32	**<1**	2	3
Chromium	ppm	ASTM D5185m	>9	**0**	0	<1
Nickel	ppm	ASTM D5185m	>5	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>9	**0**	<1	0
Lead	ppm	ASTM D5185m	>28	**0**	0	<1
Copper	ppm	ASTM D5185m	>50	**2**	3	2
Tin	ppm	ASTM D5185m	>5	**0**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>11	**0**	1	2
Potassium	ppm	ASTM D5185m	>20	**0**	<1	2
Water		WC Method	>0.075	**NEG**	NEG	NEG
Particles >4µm		ASTM D7647	>5000	**4635**	6874	1955
Particles >6µm		ASTM D7647	>1300	**1528**	341	401
Particles >14µm		ASTM D7647	>160	**51**	11	16
Particles >21µm		ASTM D7647	>40	**6**	2	3
Particles >38µm		ASTM D7647	>10	**1**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**19/18/13**	20/16/11	18/16/11
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
Sodium	ppm	ASTM D5185m	>21	**<1**	0	2
Boron	ppm	ASTM D5185m		**0**	0	1
Barium	ppm	ASTM D5185m		**0**	0	<1
Molybdenum	ppm	ASTM D5185m		**0**	0	2
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**4**	6	16
Calcium	ppm	ASTM D5185m		**121**	235	22
Phosphorus	ppm	ASTM D5185m	827	**642**	612	497
Zinc	ppm	ASTM D5185m	0	▲ **187**	▲ 259	44
Sulfur	ppm	ASTM D5185m	13	**842**	634	432
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	**0.31**	0.42	0.05
Visc @ 40°C	cSt	ASTM D445	47	**46.6**	47.9	47.5

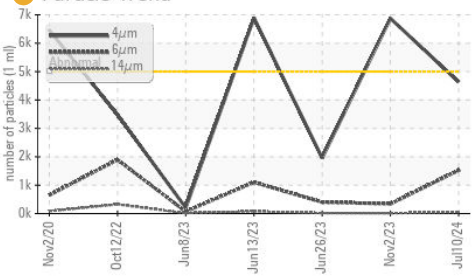
Additives



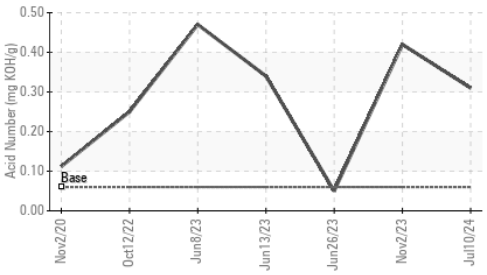
Particle Count



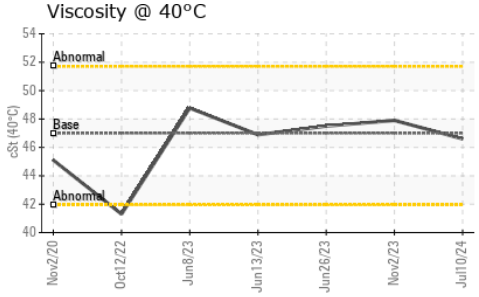
Particle Trend



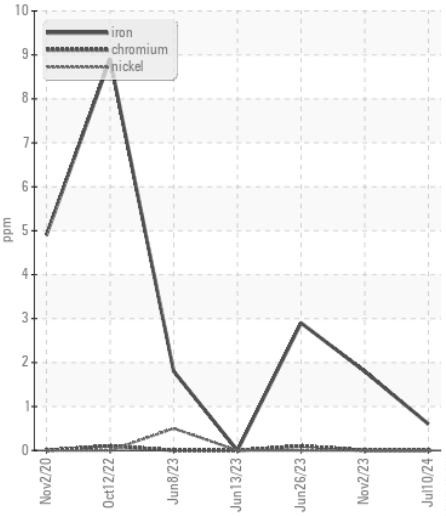
Acid Number



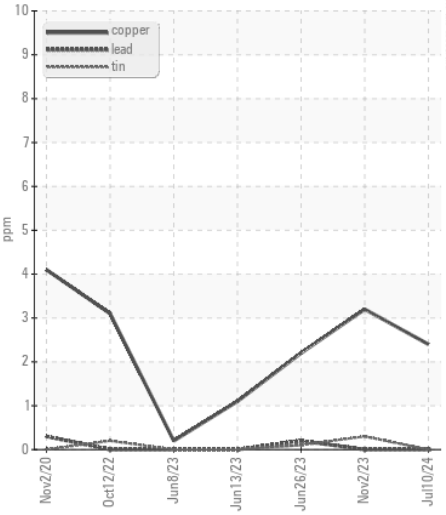
Viscosity @ 40°C



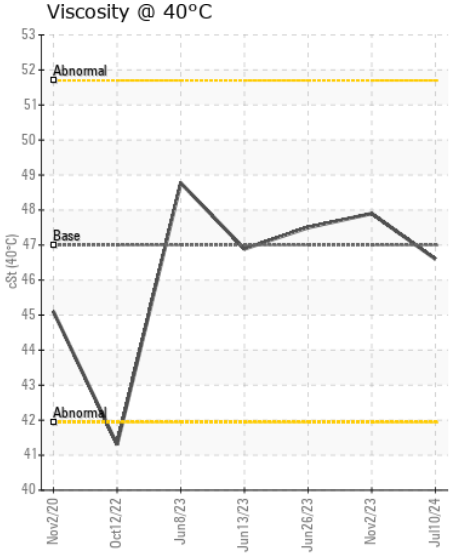
Ferrous Alloys



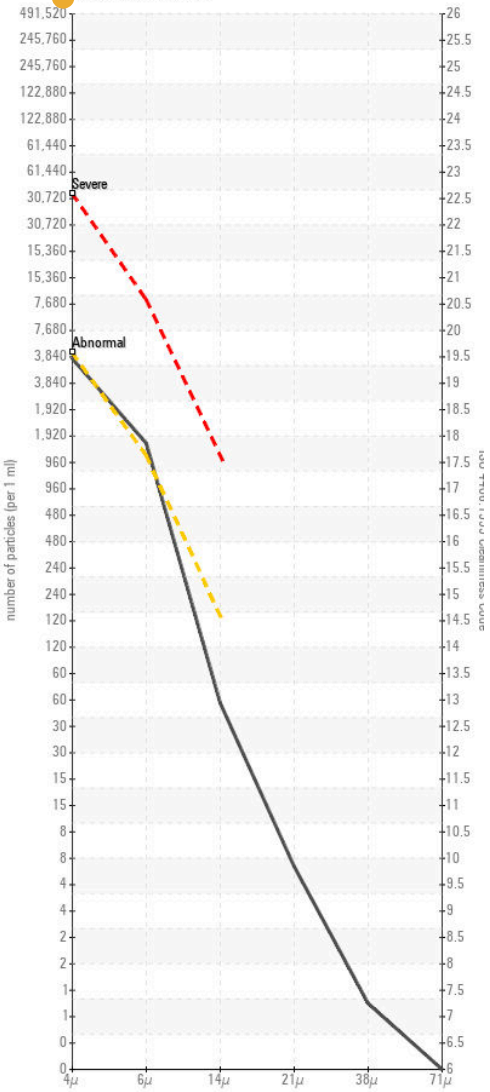
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



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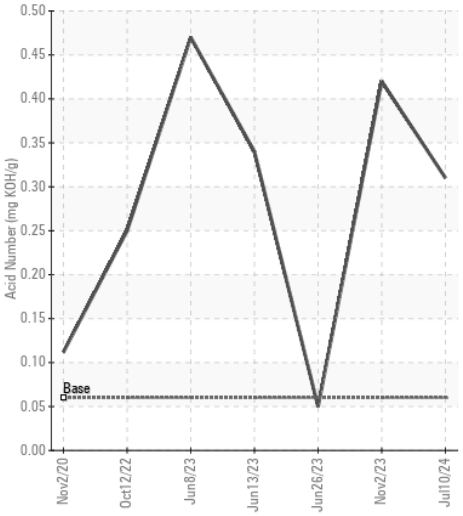

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0223605
Lab Number : 06233177
Unique Number : 11116670
Test Package : CONST (Additional Tests: PQ)

Received : 11 Jul 2024
Tested : 12 Jul 2024
Diagnosed : 12 Jul 2024 - Don Baldridge

Certificate L2367

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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)