

OIL ANALYSIS REPORT

Area

[W51086]

Machine Id

JOHN DEERE 75G 1FF075GXVFJ015758

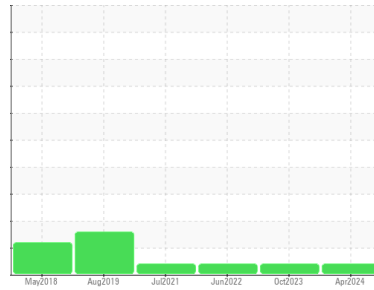
Component

Hydraulic System

Fluid

HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

Sample Rating Trend



ADDITIVES



DIAGNOSIS

▲ 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

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			JR0179293	JR0180795	JR0106348
Sample Date	Client Info			09 Apr 2024	23 Oct 2023	03 Jun 2022
Machine Age	hrs	Client Info		4944	4854	4484
Oil Age	hrs	Client Info		0	0	500
Oil Changed	Client Info			Not Chngd	Not Chngd	Not Chngd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.075	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	22	11	21
Iron	ppm	ASTM D5185m	>32	2	5	5
Chromium	ppm	ASTM D5185m	>9	3	4	4
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>9	<1	2	<1
Lead	ppm	ASTM D5185m	>28	0	<1	0
Copper	ppm	ASTM D5185m	>50	7	7	6
Tin	ppm	ASTM D5185m	>5	0	0	0
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0

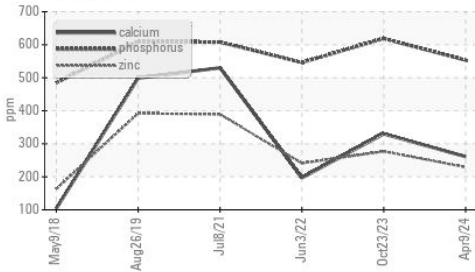
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	1
Barium	ppm	ASTM D5185m		0	3	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		2	2	2
Calcium	ppm	ASTM D5185m		261	330	197
Phosphorus	ppm	ASTM D5185m	827	553	619	546
Zinc	ppm	ASTM D5185m	0	▲ 229	▲ 277	▲ 241
Sulfur	ppm	ASTM D5185m	13	812	806	661

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>11	3	4	3
Sodium	ppm	ASTM D5185m	>21	2	0	<1
Potassium	ppm	ASTM D5185m	>20	<1	1	0

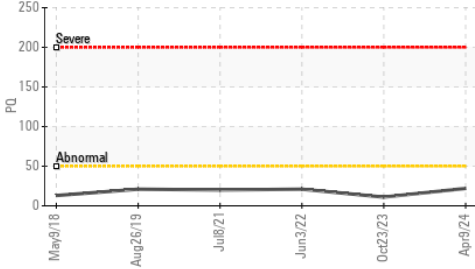
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>80000	6712	9199	6779
Particles >6µm		ASTM D7647	>20000	1483	416	412
Particles >14µm		ASTM D7647	>640	53	21	28
Particles >21µm		ASTM D7647	>160	9	6	5
Particles >38µm		ASTM D7647	>40	0	1	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	20/18/13	20/16/12	20/16/12

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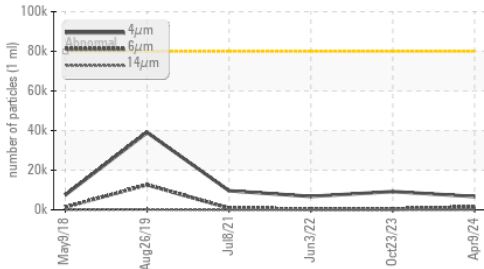
Additives



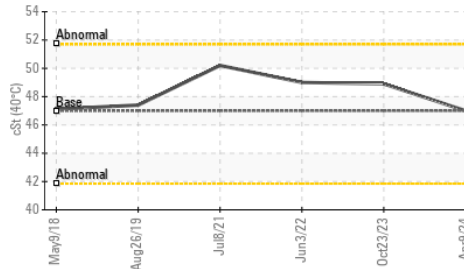
PQ



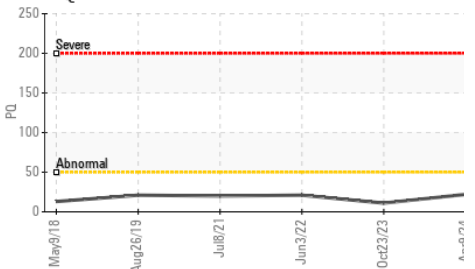
Particle Trend



Viscosity @ 40°C



PQ



FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045 0.06	0.43	0.422	0.49

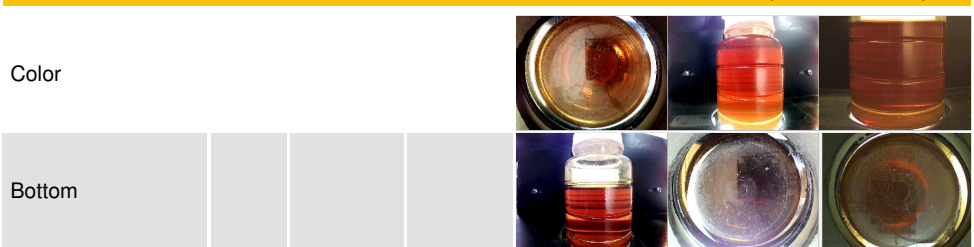
VISUAL

method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	NONE	NONE
Yellow Metal	scalar *Visual	NONE	NONE	NONE
Precipitate	scalar *Visual	NONE	NONE	NONE
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
Free Water	scalar *Visual	NEG	NEG	NEG

FLUID PROPERTIES

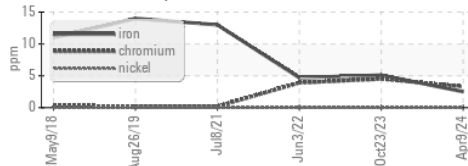
method	limit/base	current	history1	history2
Visc @ 40°C cSt	ASTM D445 47	47.0	48.9	49.0

SAMPLE IMAGES

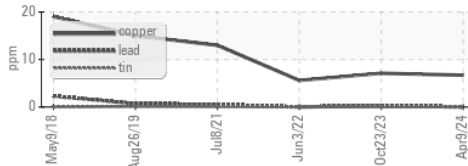


GRAPHS

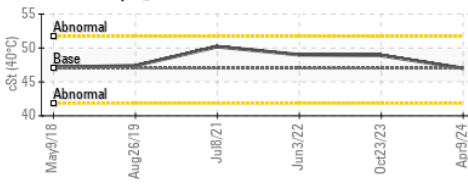
Ferrous Alloys



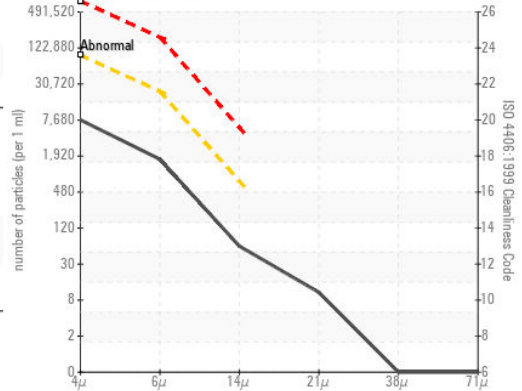
Non-ferrous Metals



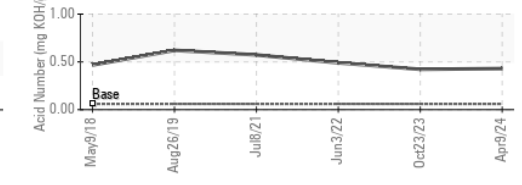
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0179293

Lab Number : 06145750

Unique Number : 10970558

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)

Received : 11 Apr 2024

Tested : 12 Apr 2024

Diagnosed : 14 Apr 2024 - Don Baldrige

JRE - ASHLAND

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