



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 50G 1FF050GXVFH283239
 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0194223	JRMC393900	JRMC396793
Sample Date		Client Info		16 Jan 2024	30 Nov 2018	06 Jul 2016
Machine Age	hrs	Client Info		1355	2456	372
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	18	17	10.0
Iron	ppm	ASTM D5185m	>32	14	11	5
Chromium	ppm	ASTM D5185m	>9	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	1	<1	<1
Lead	ppm	ASTM D5185m	>28	0	<1	0
Copper	ppm	ASTM D5185m	>50	19	7	4
Tin	ppm	ASTM D5185m	>5	0	0	2
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

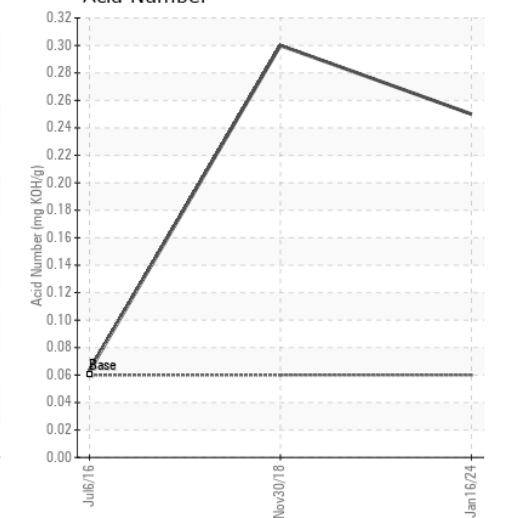
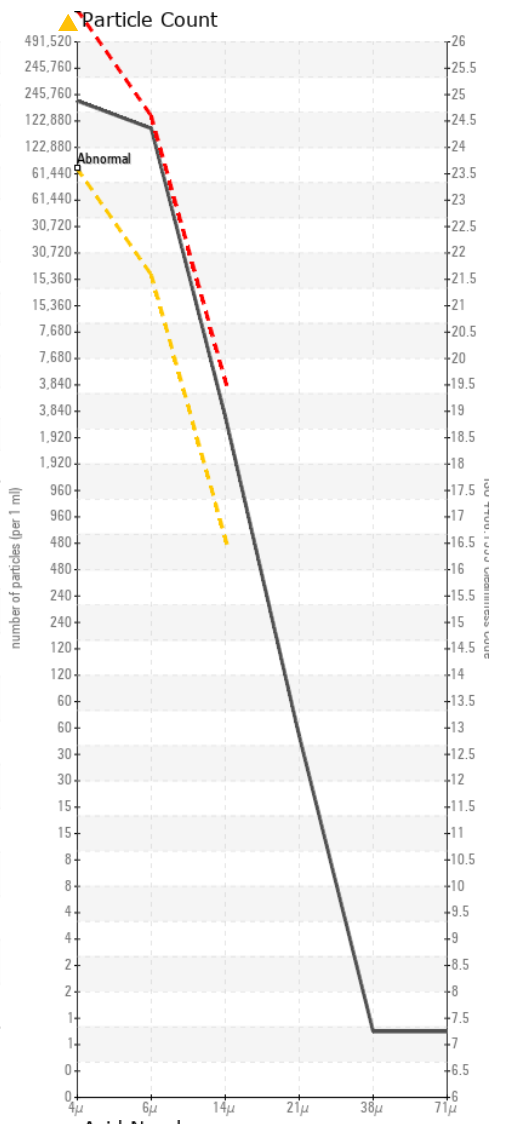
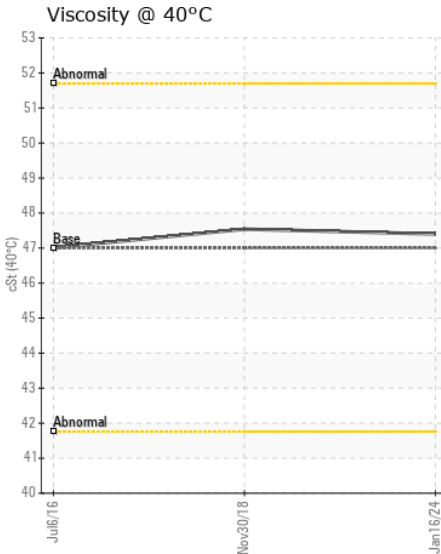
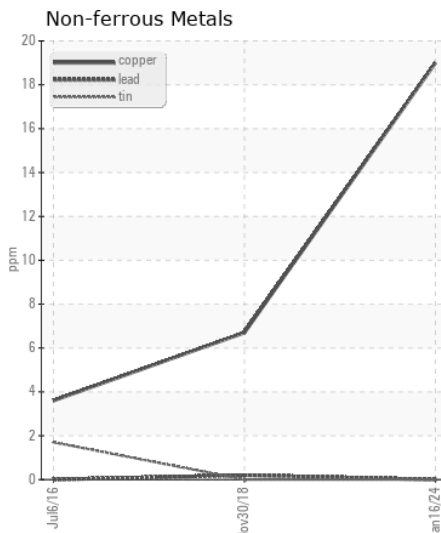
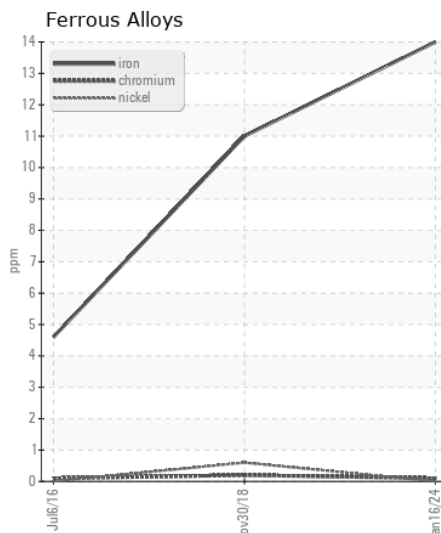
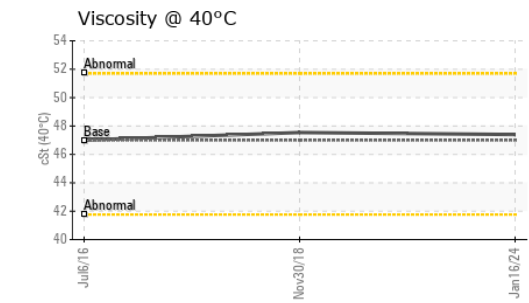
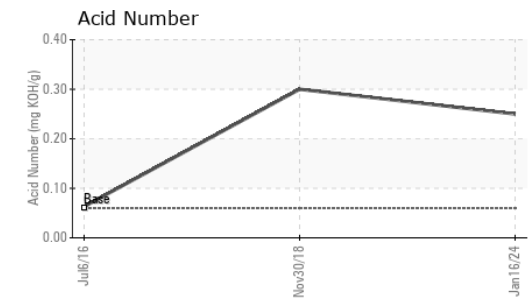
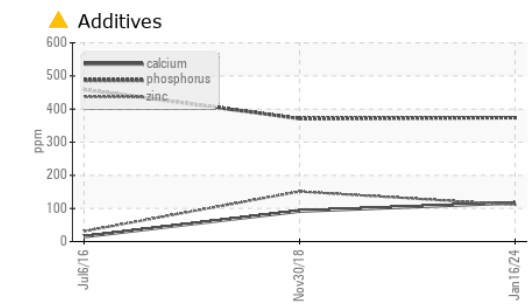
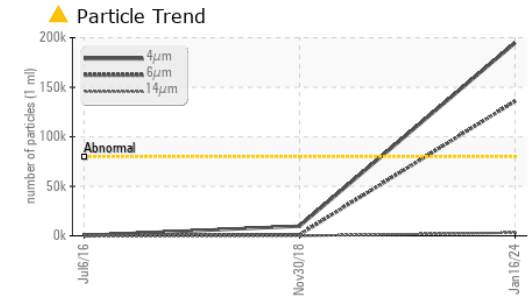
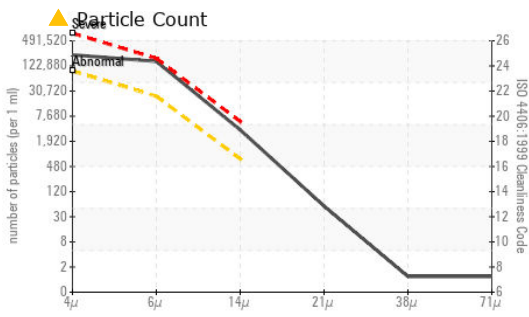
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>11	4	2	2
Potassium	ppm	ASTM D5185m	>20	<1	2	4
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	▲ 194691	9735	339
Particles >6µm		ASTM D7647	>20000	▲ 135790	1140	184
Particles >14µm		ASTM D7647	>640	▲ 3149	33	31
Particles >21µm		ASTM D7647	>160	48	10	10
Particles >38µm		ASTM D7647	>40	1	2	1
Particles >71µm		ASTM D7647	>10	1	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	▲ 25/24/19	20/17/12	16/15/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	VLITE	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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>21	0	<1	<1
Boron	ppm	ASTM D5185m		0	1	0
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		<1	3	4
Calcium	ppm	ASTM D5185m		117	92	15
Phosphorus	ppm	ASTM D5185m	827	374	371	459
Zinc	ppm	ASTM D5185m	0	▲ 111	151	31
Sulfur	ppm	ASTM D5185m	13	415	683	657
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.25	0.300	0.063
Visc @ 40°C	cSt	ASTM D445	47	47.4	47.54	47.01



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0194223 **Received** : 17 Jan 2024
Lab Number : 06062531 **Diagnosed** : 18 Jan 2024
Unique Number : 10833913 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: PQ)

JRE - GREENSBORO
 411 SOUTH REGIONAL ROAD
 GREENSBORO, NC
 US 27409
 Contact: NICK GALLAHER
 NGALLAHER@JRENET.COM
 T: (336)668-2762
 F: (336)665-9556

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)