



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Area
Store 5 - Cross Lanes
Machine Id
JOHN DEERE 250G E-32 (S/N 1FF250GXXKDE608944)
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (63 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		LEC0039987	LEC0012299	LEC0007329
Sample Date		Client Info		28 May 2024	08 Apr 2022	14 Nov 2019
Machine Age	hrs	Client Info		7604	6674	6246
Oil Age	hrs	Client Info		7604	6674	0
Filter Age	hrs	Client Info		500	500	250
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	25	21	10
Iron	ppm	ASTM D5185m	>32	30	23	12
Chromium	ppm	ASTM D5185m	>9	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>9	3	3	4
Lead	ppm	ASTM D5185m	>28	0	0	<1
Copper	ppm	ASTM D5185m	>50	5	6	4
Tin	ppm	ASTM D5185m	>5	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

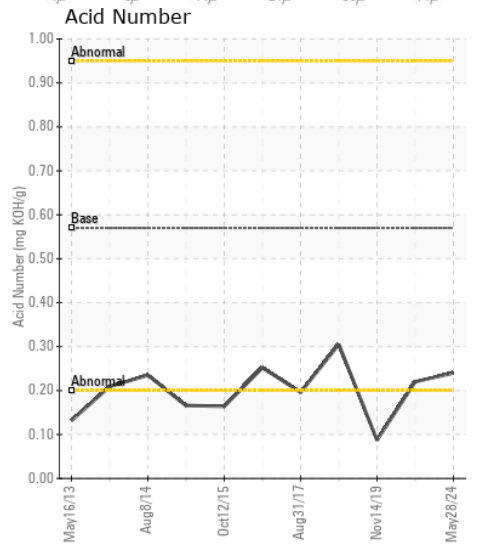
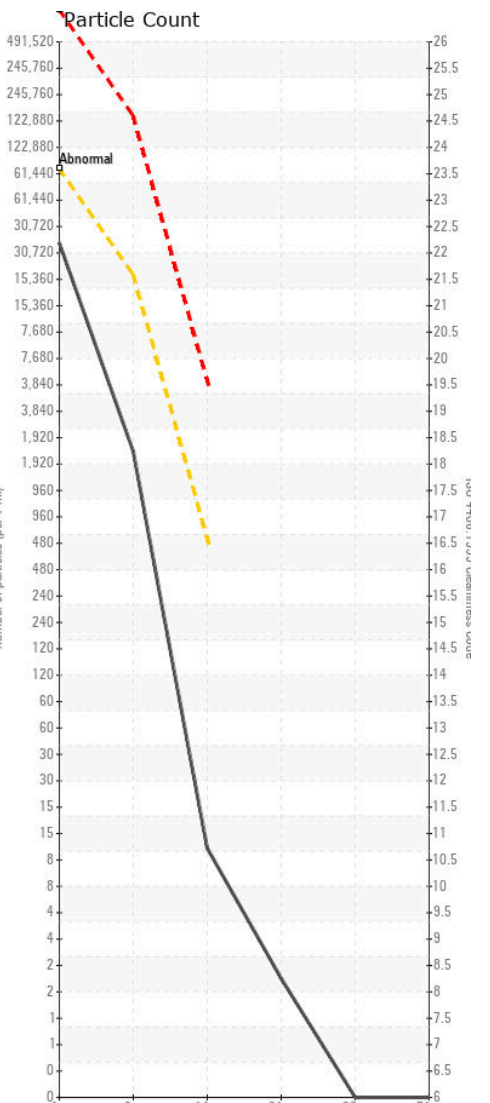
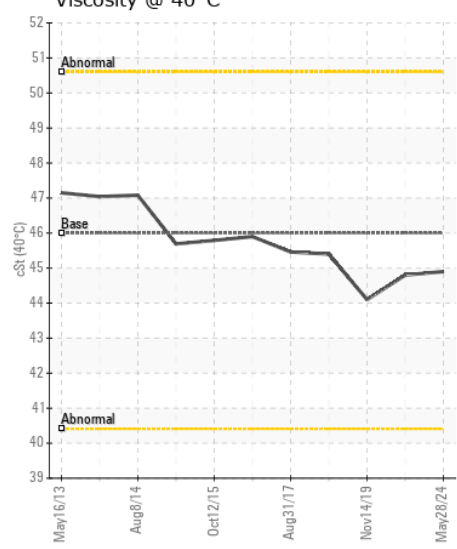
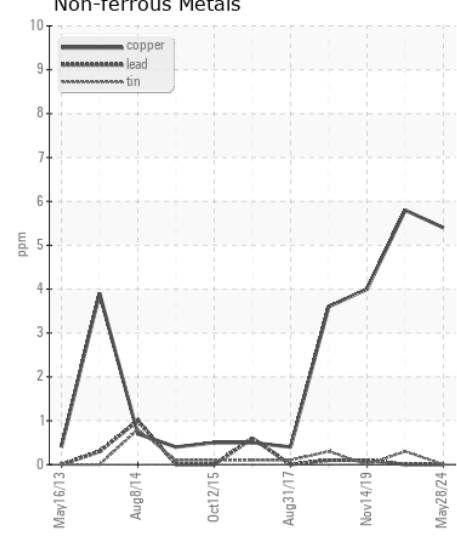
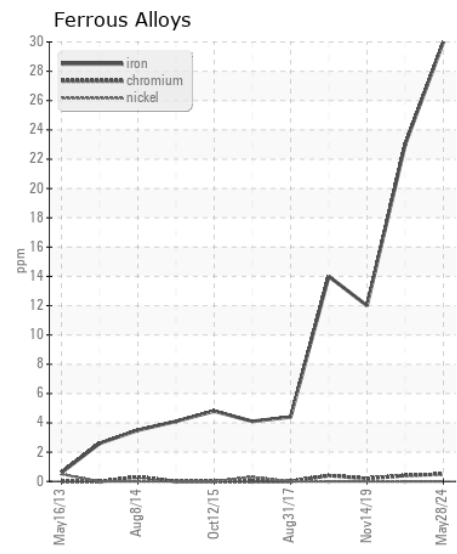
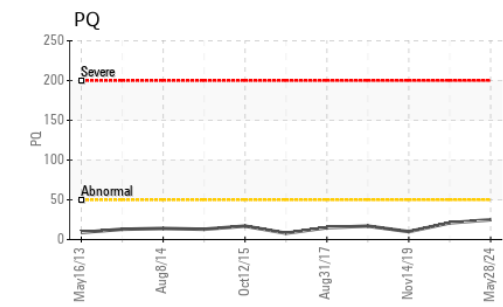
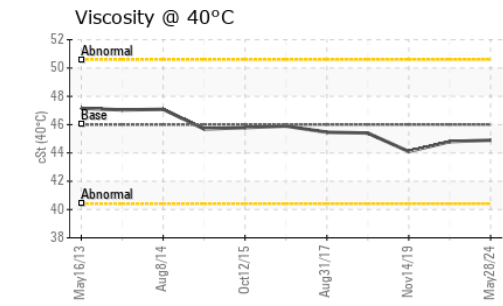
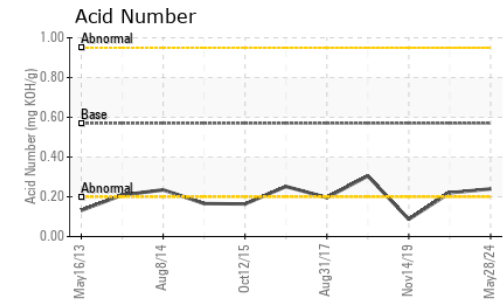
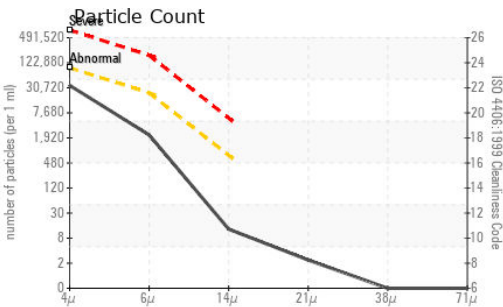
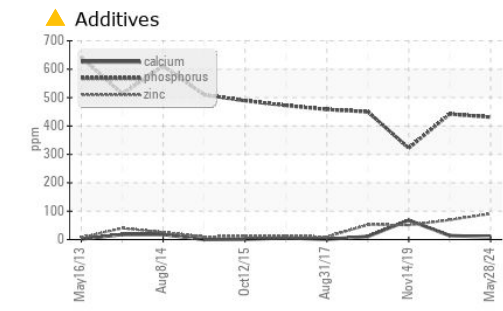
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	6	3	▲ 11
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	30368	53717	50139
Particles >6µm		ASTM D7647	>20000	1979	8013	5659
Particles >14µm		ASTM D7647	>640	11	226	268
Particles >21µm		ASTM D7647	>160	2	26	71
Particles >38µm		ASTM D7647	>40	0	0	7
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	22/18/11	23/20/15	23/20/15
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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	0
Boron	ppm	ASTM D5185m	5	2	<1	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	<1	1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	25	3	<1	4
Calcium	ppm	ASTM D5185m	200	9	14	68
Phosphorus	ppm	ASTM D5185m	300	431	442	322
Zinc	ppm	ASTM D5185m	370	▲ 91	69	51
Sulfur	ppm	ASTM D5185m	2500	303	260	264
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.24	0.22	0.087
Visc @ 40°C	cSt	ASTM D445	46	44.9	44.8	44.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0039987 **Received** : 19 Jun 2024
Lab Number : 06214542 **Tested** : 20 Jun 2024
Unique Number : 11087406 **Diagnosed** : 21 Jun 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

APEX PIPELINE
 P.O. BOX 580
 NITRO, WV
 US 25143
 Contact: KELLY TUCKER

Certificate L2367
 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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