



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Machine Id
JOHN DEERE 524P 1DW524PAPNLZ13570

Component
Hydraulic System

Fluid
JOHN DEERE HYDRAU (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0205827	JR0192615	JR0171166
Sample Date		Client Info		15 Jun 2024	29 Nov 2023	15 Jun 2023
Machine Age	hrs	Client Info		2468	2037	1456
Oil Age	hrs	Client Info		892	1042	1456
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	20	0	2
Chromium	ppm	ASTM D5185m	>10	0	1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	1	2
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	4	2	1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

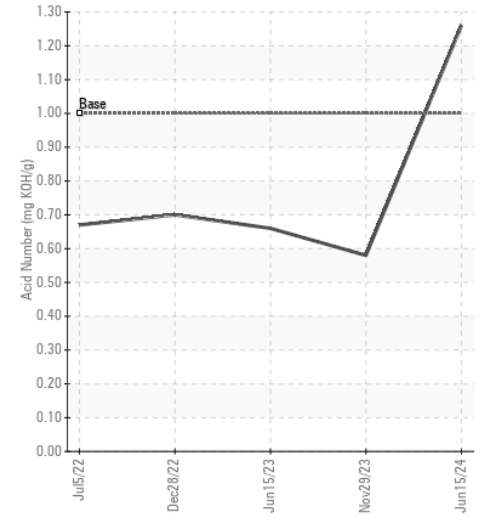
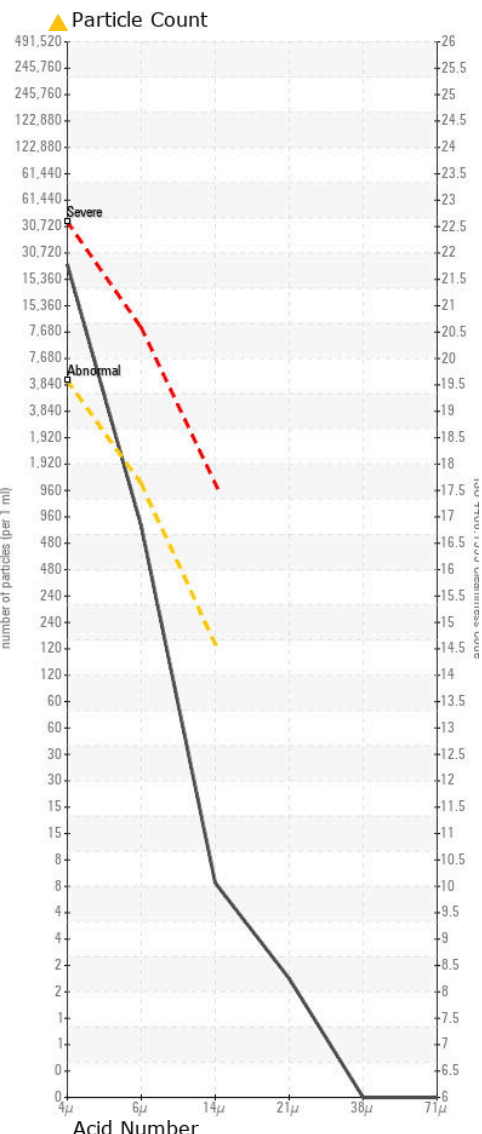
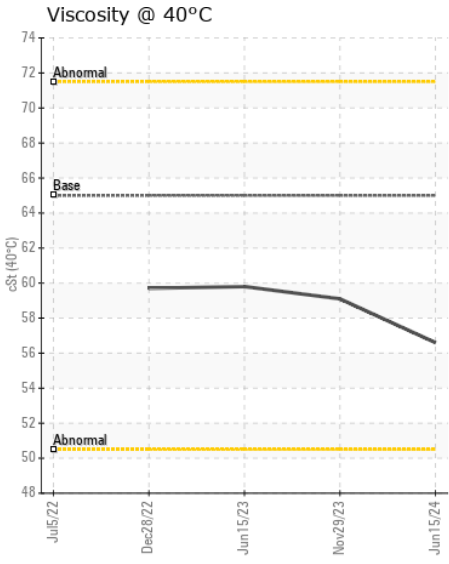
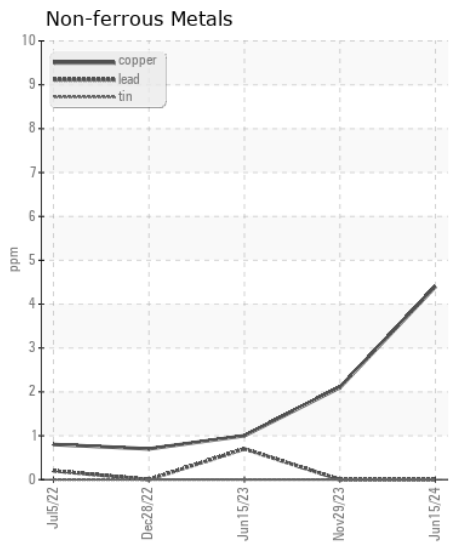
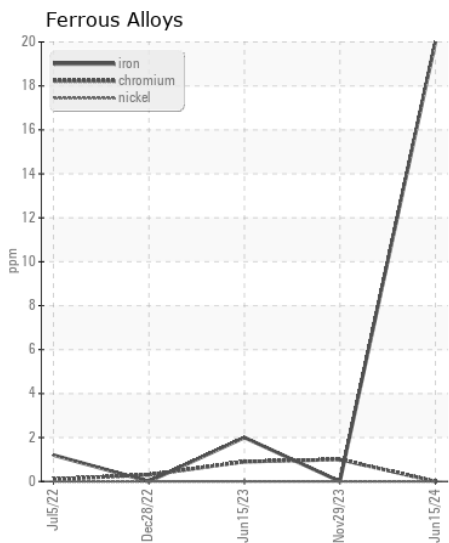
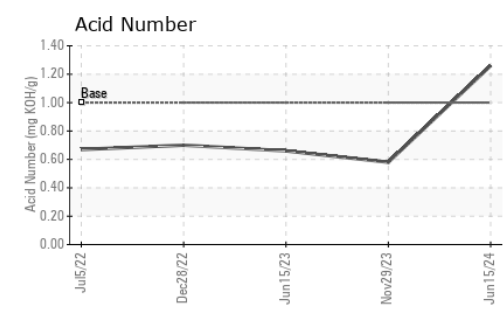
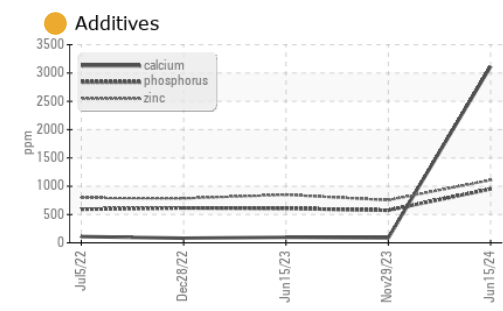
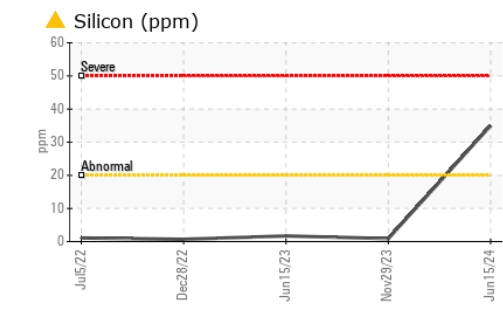
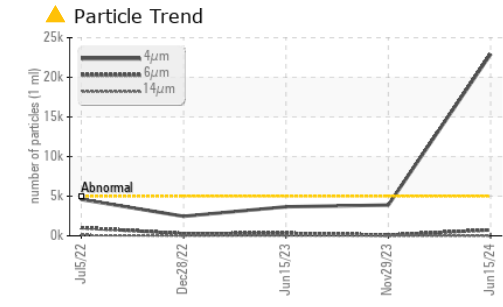
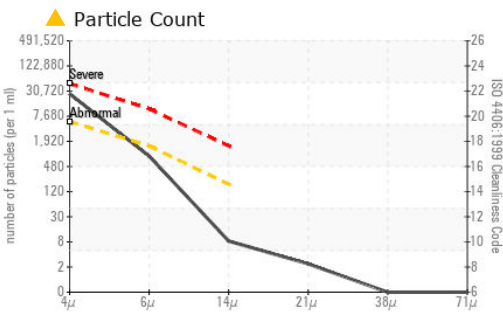
There is a high amount of silt (particulates < 6 microns in size) present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>20	▲ 35	<1	2
Potassium	ppm	ASTM D5185m	>20	0	2	5
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 22931	3880	3662
Particles >6µm		ASTM D7647	>1300	747	87	320
Particles >14µm		ASTM D7647	>160	7	8	35
Particles >21µm		ASTM D7647	>40	2	1	9
Particles >38µm		ASTM D7647	>10	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/17/10	19/14/10	19/15/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		10	4	3
Boron	ppm	ASTM D5185m		5	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		● 85	4	5
Calcium	ppm	ASTM D5185m	87	● 3117	86	98
Phosphorus	ppm	ASTM D5185m	727	● 950	574	608
Zinc	ppm	ASTM D5185m	900	1107	754	849
Sulfur	ppm	ASTM D5185m	1500	● 3528	1434	1908
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	1.26	0.58	0.66
Visc @ 40°C	cSt	ASTM D445	65	56.6	59.1	59.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0205827 **Received** : 18 Jun 2024
Lab Number : 06213698 **Tested** : 21 Jun 2024
Unique Number : 11086562 **Diagnosed** : 21 Jun 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PQ)

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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)