



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 4129
 Component
Hydraulic System
 Fluid
TRC SPECIAL 303 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

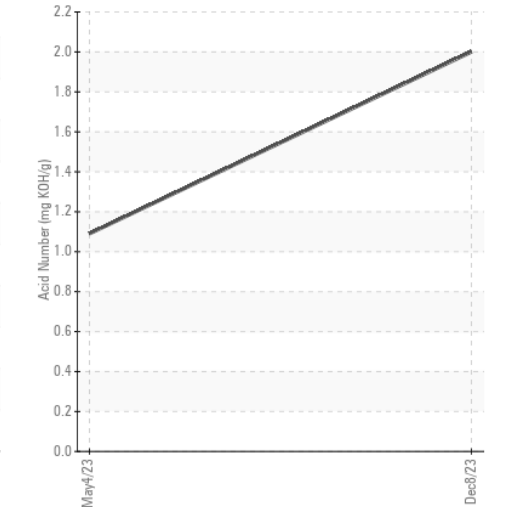
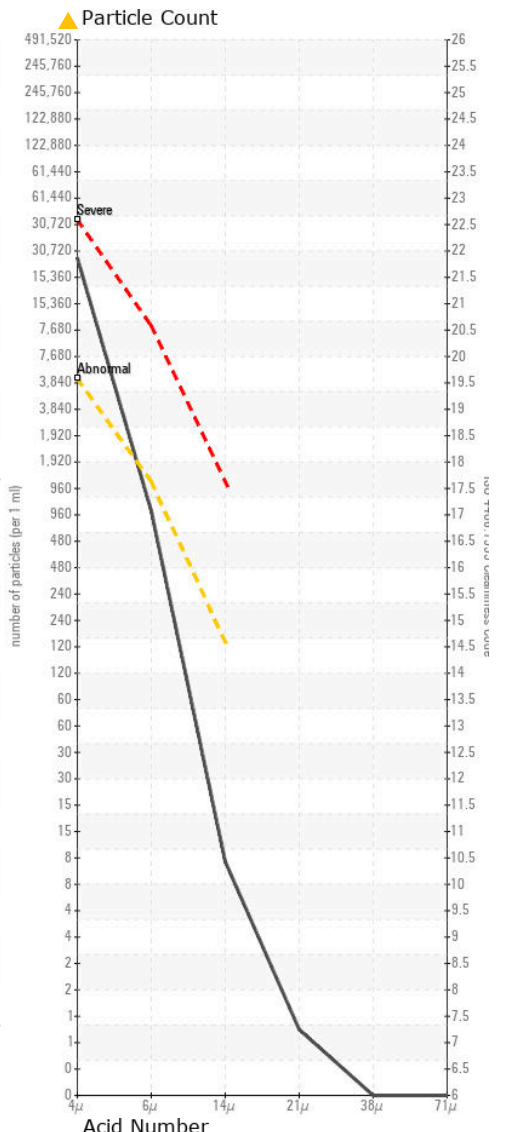
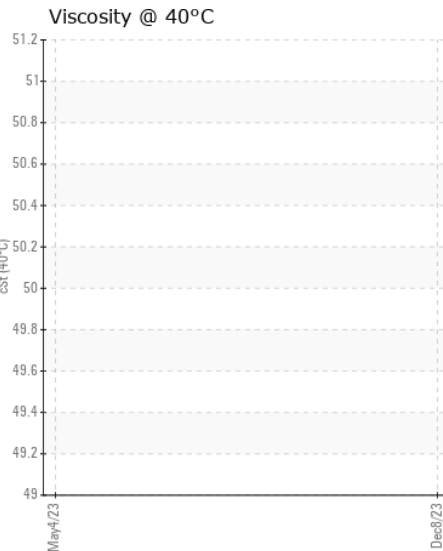
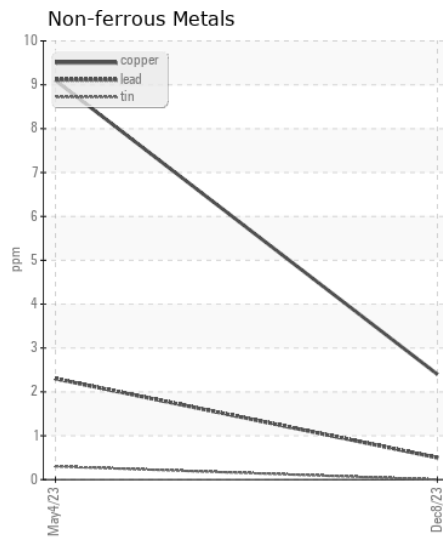
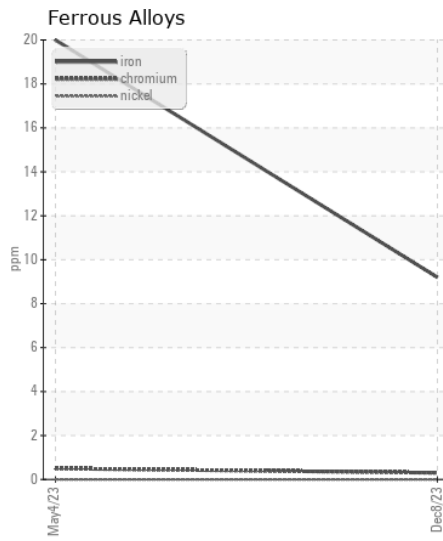
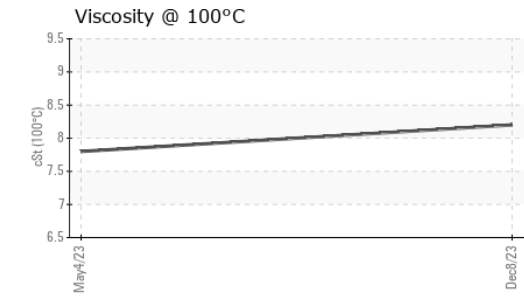
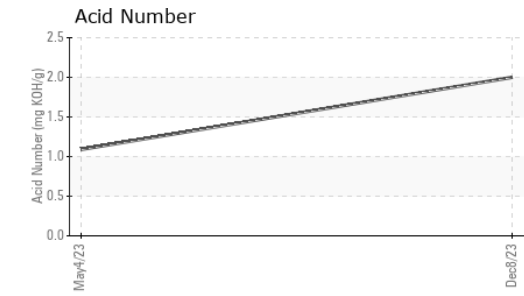
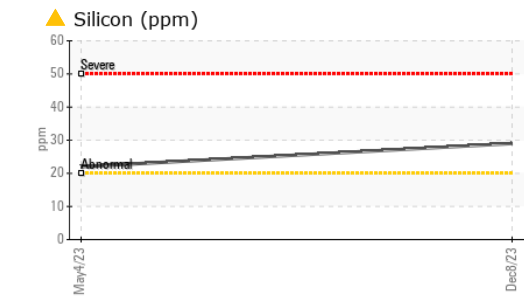
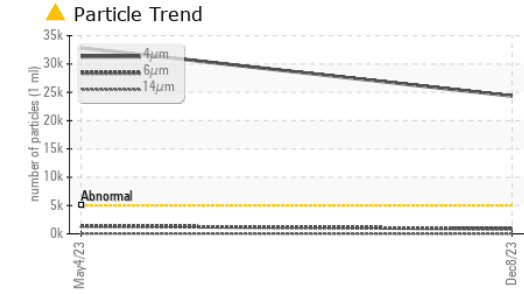
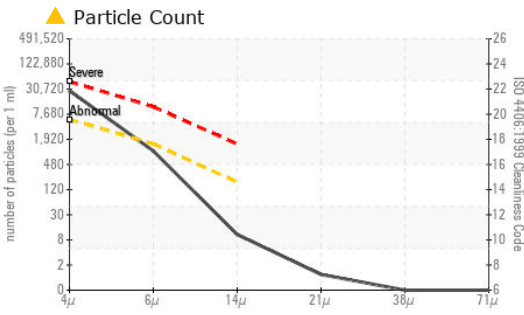
CONTAMINATION

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.

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06062602	TR05867823	---
Sample Date		Client Info		08 Dec 2023	04 May 2023	---
Machine Age	hrs	Client Info		1968	1675	---
Oil Age	hrs	Client Info		295	651	---
Filter Age	hrs	Client Info		295	651	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---
Iron	ppm	ASTM D5185m	>20	9	20	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	1	<1	---
Lead	ppm	ASTM D5185m	>10	<1	2	---
Copper	ppm	ASTM D5185m	>75	2	9	---
Tin	ppm	ASTM D5185m	>10	0	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>20	▲ 29	▲ 22	---
Potassium	ppm	ASTM D5185m	>20	2	<1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	▲ 24340	▲ 32849	---
Particles >6µm		ASTM D7647	>1300	886	▲ 1366	---
Particles >14µm		ASTM D7647	>160	9	28	---
Particles >21µm		ASTM D7647	>40	1	3	---
Particles >38µm		ASTM D7647	>10	0	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/17/10	▲ 22/18/12	---
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	>0.1	NEG	NEG	---
Sodium	ppm	ASTM D5185m		5	7	---
Boron	ppm	ASTM D5185m		157	141	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		<1	<1	---
Manganese	ppm	ASTM D5185m		<1	2	---
Magnesium	ppm	ASTM D5185m		22	36	---
Calcium	ppm	ASTM D5185m		5641	4739	---
Phosphorus	ppm	ASTM D5185m		1586	1455	---
Zinc	ppm	ASTM D5185m		1975	1844	---
Sulfur	ppm	ASTM D5185m		5175	6606	---
Acid Number (AN)	mg KOH/g	ASTM D8045		2.00	1.09	---
Visc @ 40°C	cSt	ASTM D445		50.1	---	---
Visc @ 100°C	cSt	ASTM D445		8.2	7.8	---
Viscosity Index (VI)	Scale	ASTM D2270		136	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06062602 **Received** : 17 Jan 2024
Lab Number : 06062602 **Diagnosed** : 19 Jan 2024
Unique Number : 10833984 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: KV100, VI)

RANDALL COUNTY ROAD DEPT.
 301 WEST HIGHWAY 60
 CANYON, TX
 US 79015
 Contact: MIKE LEWIS

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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)

T:
F: