



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 4129

Component
Diesel Engine

Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (4 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06062982	TR05802612	TR05191562
Sample Date		Client Info		08 Jan 2024	08 Mar 2023	29 Dec 2020
Machine Age	hrs	Client Info		1970	1640	1106
Oil Age	hrs	Client Info		330	534	82
Filter Age	hrs	Client Info		330	534	82
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	10	17	6
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	2	3	2
Lead	ppm	ASTM D5185m	>26	<1	<1	0
Copper	ppm	ASTM D5185m	>26	27	194	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

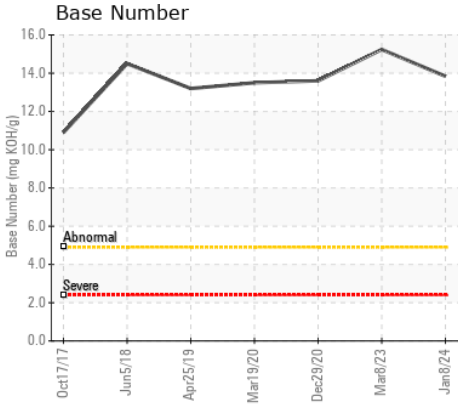
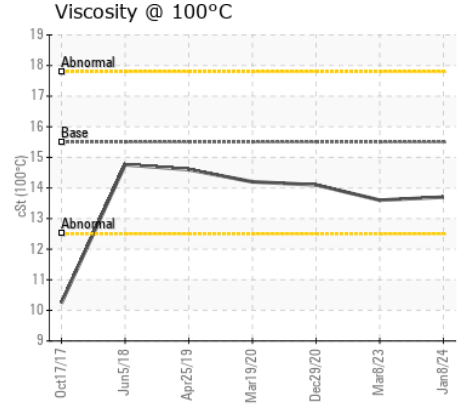
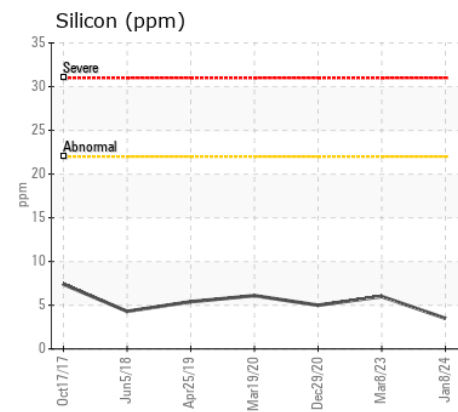
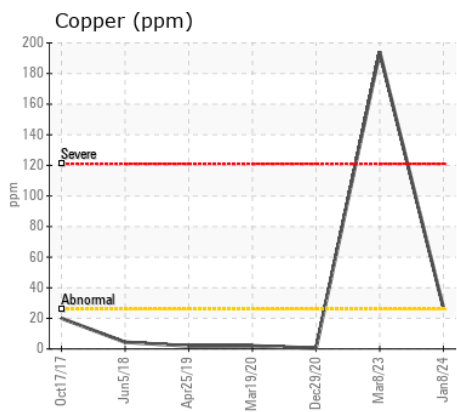
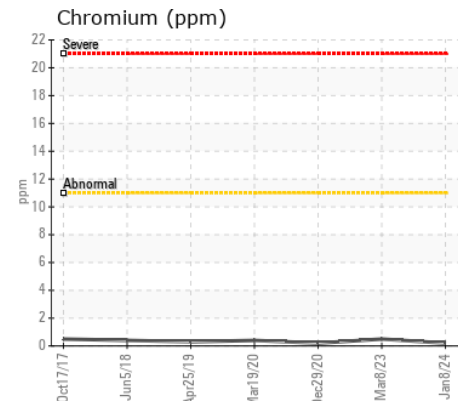
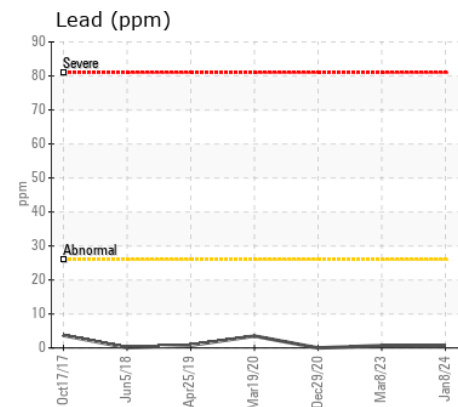
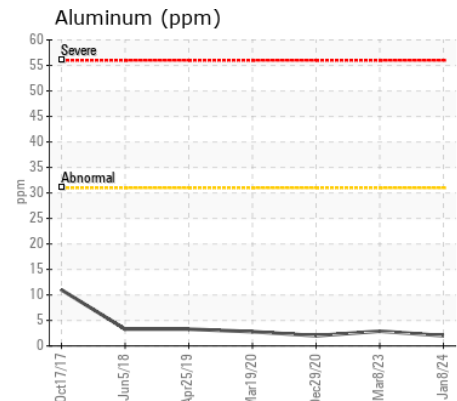
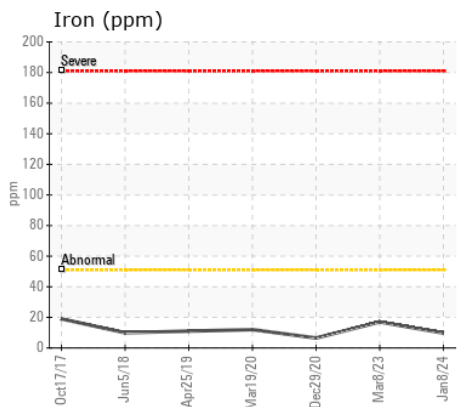
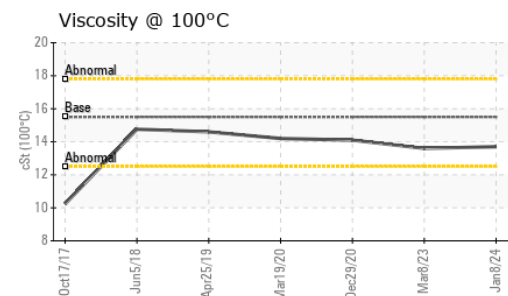
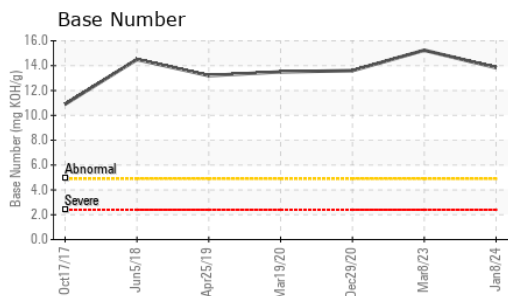
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	4	6	5
Potassium	ppm	ASTM D5185m	>20	<1	<1	6
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.5	7.0	5.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.2	18.4	18.7
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	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	>0.21	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	2	3	4
Boron	ppm	ASTM D5185m		0	0	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	<1	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		6	21	16
Calcium	ppm	ASTM D5185m		4951	4917	4957
Phosphorus	ppm	ASTM D5185m		892	975	1064
Zinc	ppm	ASTM D5185m		1158	1173	1208
Sulfur	ppm	ASTM D5185m		4111	5147	4024
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.5	11.0	12
Base Number (BN)	mg KOH/g	ASTM D2896		13.84	15.24	13.6
Visc @ 100°C	cSt	ASTM D445	15.5	13.7	13.6	14.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06062982 **Received** : 17 Jan 2024
Lab Number : 06062982 **Diagnosed** : 18 Jan 2024
Unique Number : 10834364 **Diagnostician** : Sean Felton
Test Package : MOB 2

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

Certificate L2367
 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)

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