



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
DOOSAN 380 10-15 (S/N L3CDY-010041)
 Component
Right Swing Drive
 Fluid
TRC 890 VARI-PURPOSE SAE80W90 (2 GAL)

RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06145344	---	---
Sample Date		Client Info		29 Mar 2024	---	---
Machine Age	hrs	Client Info		3390	---	---
Oil Age	hrs	Client Info		1055	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Not Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>400	▲ 527	---	---
Chromium	ppm	ASTM D5185m	>10	▲ 15	---	---
Nickel	ppm	ASTM D5185m	>10	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	2	---	---
Lead	ppm	ASTM D5185m	>50	0	---	---
Copper	ppm	ASTM D5185m	>200	50	---	---
Tin	ppm	ASTM D5185m	>10	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

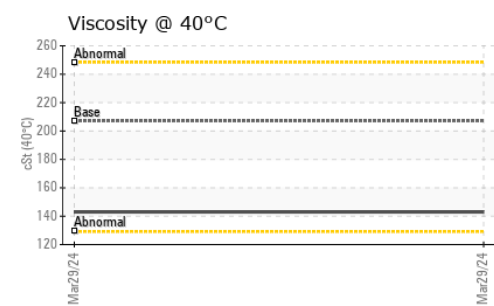
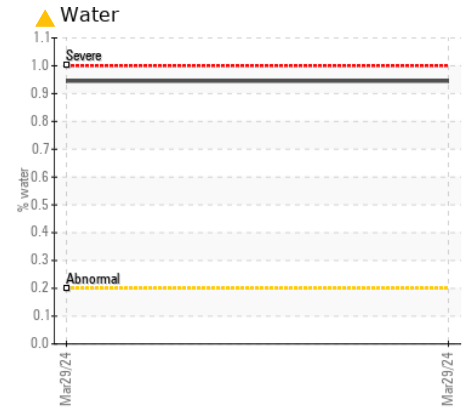
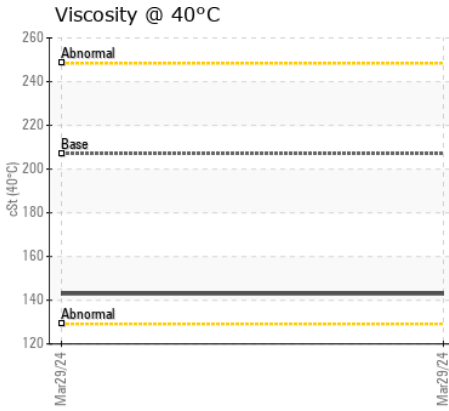
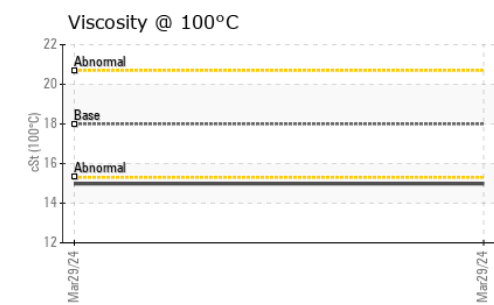
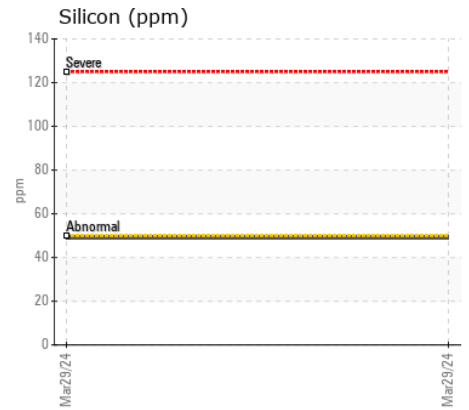
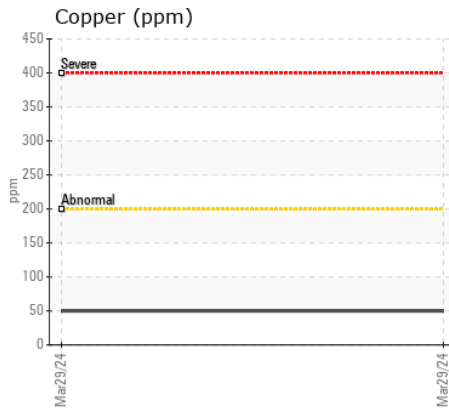
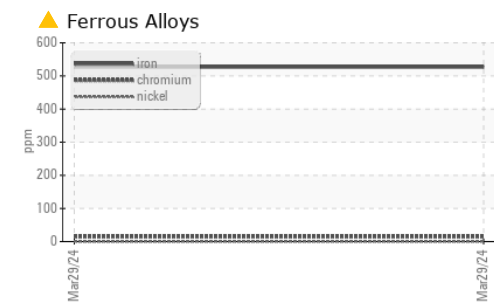
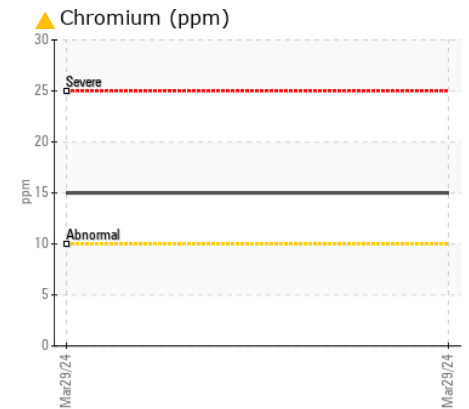
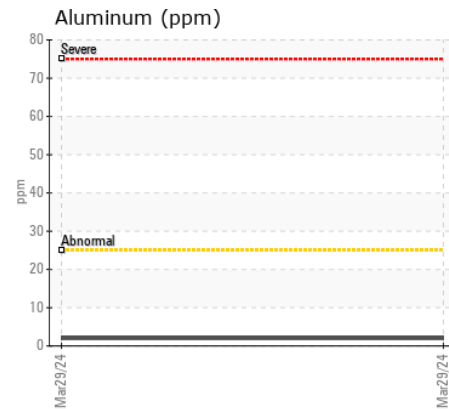
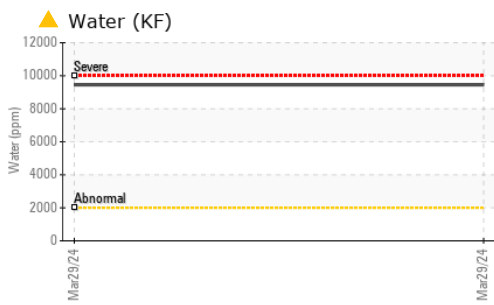
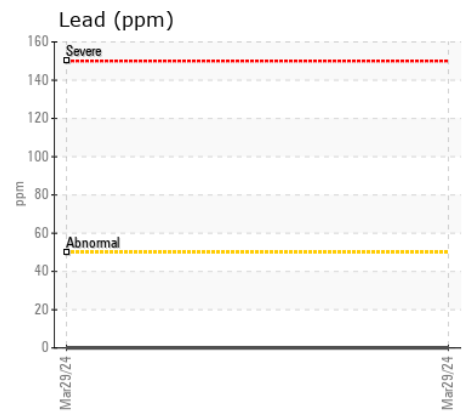
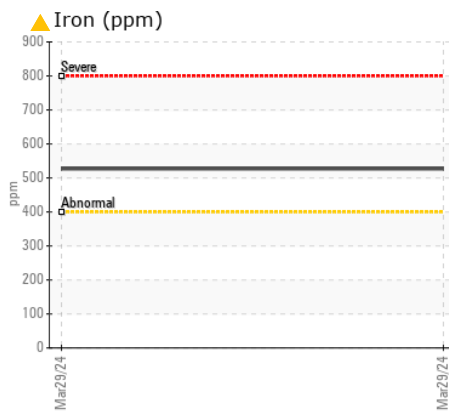
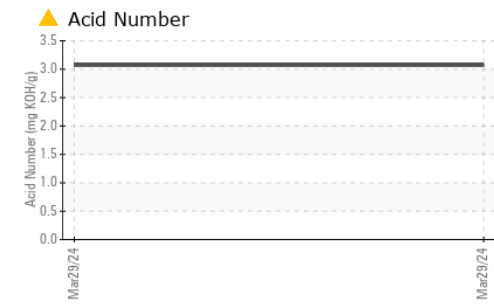
There is a high concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>50	49	---	---
Potassium	ppm	ASTM D5185m	>20	8	---	---
Water	%	ASTM D6304	>0.2	▲ 0.945	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 9450	---	---
Silt	scalar	*Visual	NONE	MODER	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	0.2%	---	---

FLUID CONDITION

The AN level is at the top-end of the recommended limit.

Sodium	ppm	ASTM D5185m		2	---	---
Boron	ppm	ASTM D5185m		3	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		2	---	---
Manganese	ppm	ASTM D5185m		12	---	---
Magnesium	ppm	ASTM D5185m		4	---	---
Calcium	ppm	ASTM D5185m		123	---	---
Phosphorus	ppm	ASTM D5185m	1000	2183	---	---
Zinc	ppm	ASTM D5185m		153	---	---
Sulfur	ppm	ASTM D5185m	17000	26220	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		▲ 3.07	---	---
Visc @ 40°C	cSt	ASTM D445	207	143	---	---
Visc @ 100°C	cSt	ASTM D445	18	14.98	---	---
Viscosity Index (VI)	Scale	ASTM D2270	98	105	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06145344
Lab Number : 06145344
Unique Number : 10970152
Test Package : MOB 2 (Additional Tests: KF, KV100, VI)

Received : 10 Apr 2024
Tested : 16 Apr 2024
Diagnosed : 16 Apr 2024 - Jonathan Hester

KASKI LOGGING
 22411 HE CEDAR CREEK RD
 AMBOY, WA
 US 98601
 Contact: NATHAN BYRD

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: