



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
COL MIXER

Component
Gearbox

Fluid
TRC MOLY ULTRA-TEC GEAR OIL 80W90 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06187855	---	---
Sample Date		Client Info		15 May 2024	---	---
Machine Age	yrs	Client Info		0	---	---
Oil Age	yrs	Client Info		3	---	---
Filter Age	yrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---

WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>200	▲ 281	---	---
Chromium	ppm	ASTM D5185m	>10	1	---	---
Nickel	ppm	ASTM D5185m	>10	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		<1	---	---
Aluminum	ppm	ASTM D5185m	>25	6	---	---
Lead	ppm	ASTM D5185m	>50	0	---	---
Copper	ppm	ASTM D5185m	>200	<1	---	---
Tin	ppm	ASTM D5185m	>10	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

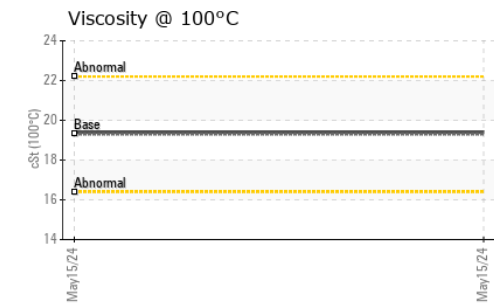
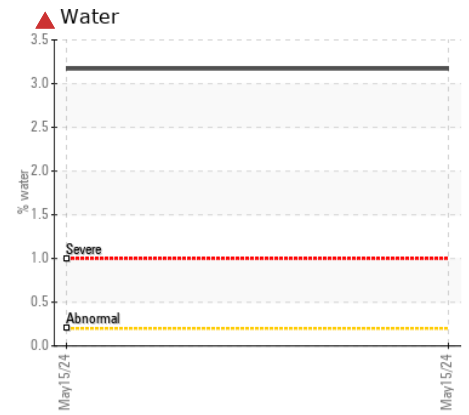
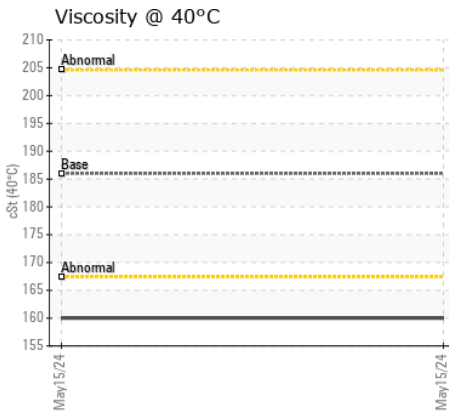
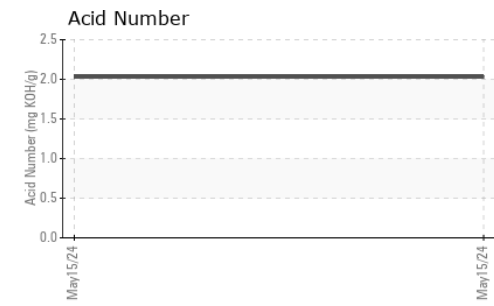
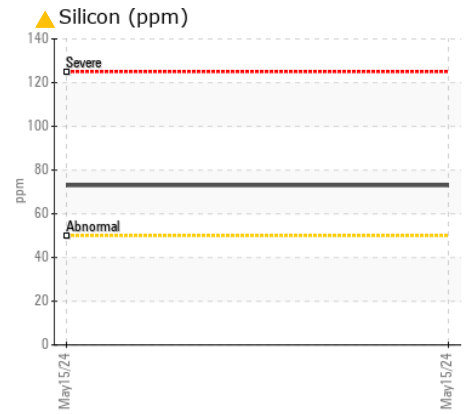
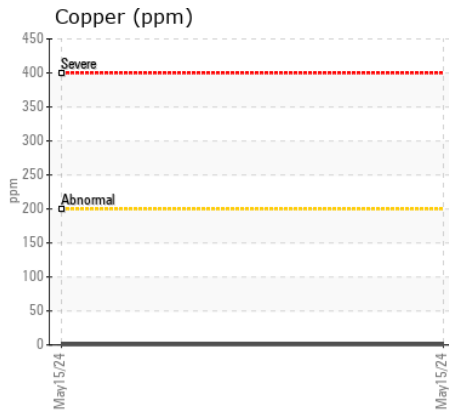
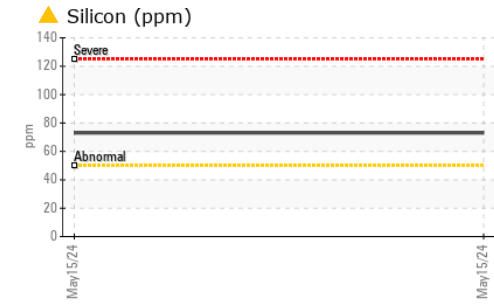
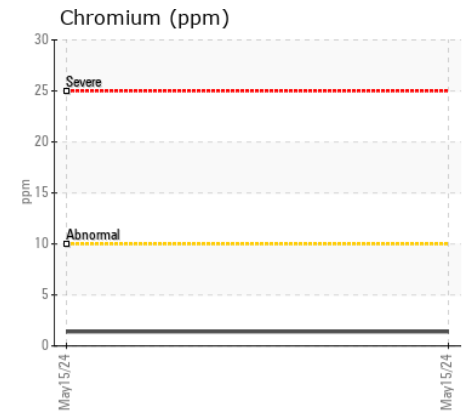
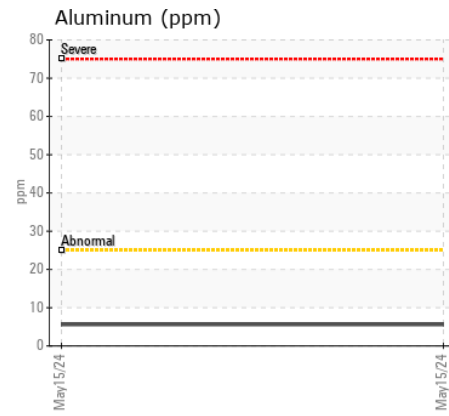
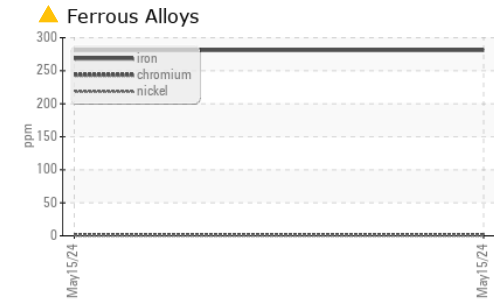
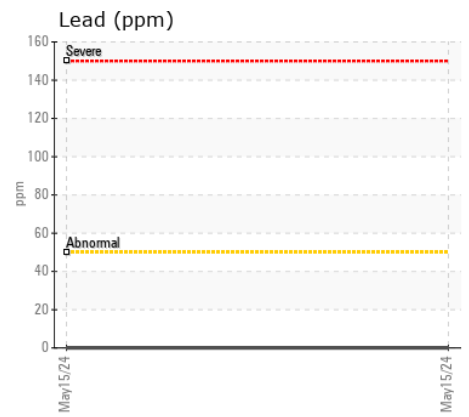
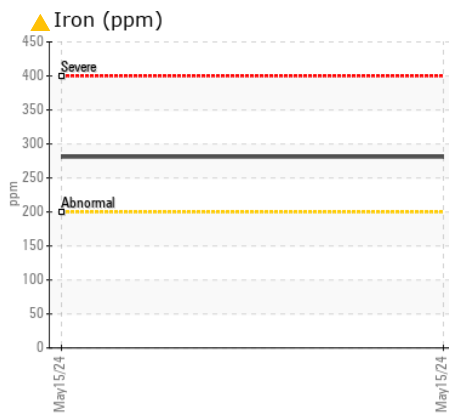
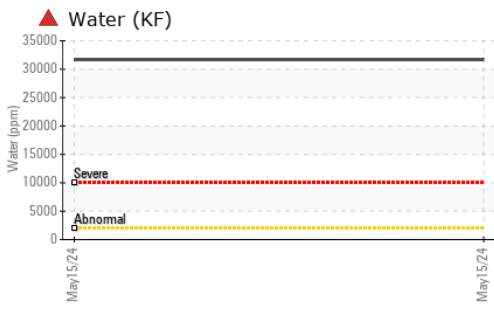
Elemental level of silicon (Si) above normal. There is a high amount of visible silt present in the sample. There is a high concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>50	▲ 73	---	---
Potassium	ppm	ASTM D5185m	>20	3	---	---
Water	%	ASTM D6304	>0.2	▲ 3.17	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 31700	---	---
Silt	scalar	*Visual	NONE	▲ HEAVY	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	● MILKY	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	---	---

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		3	---	---
Boron	ppm	ASTM D5185m		213	---	---
Barium	ppm	ASTM D5185m		1	---	---
Molybdenum	ppm	ASTM D5185m		19	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m		9	---	---
Calcium	ppm	ASTM D5185m		147	---	---
Phosphorus	ppm	ASTM D5185m		1152	---	---
Zinc	ppm	ASTM D5185m		29	---	---
Sulfur	ppm	ASTM D5185m		21809	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		2.03	---	---
Visc @ 40°C	cSt	ASTM D445	186	160	---	---
Visc @ 100°C	cSt	ASTM D445	19.3	19.4	---	---
Viscosity Index (VI)	Scale	ASTM D2270	125	138	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06187855 **Received** : 22 May 2024
Lab Number : 06187855 **Tested** : 24 May 2024
Unique Number : 11044607 **Diagnosed** : 24 May 2024 - Don Baldrige
Test Package : MOB 2 (Additional Tests: KF, KV100, VI)

CHRIST BROTHERS PRODUCTS
 820 S FRITZ
 LEBANON, IL
 US 62254
 Contact: BRUCE COWELL

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: