



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
19 - BEAD FORMER
 Component
Gearbox
 Fluid
TRC 890 VARI-PURPOSE 85W140 (14 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05939818	TR05802544	TR05713708
Sample Date		Client Info		30 Aug 2023	14 Mar 2023	06 Dec 2022
Machine Age	yrs	Client Info		0	0	0
Oil Age	yrs	Client Info		0	0	0
Filter Age	yrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	7	7	6
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	3
Aluminum	ppm	ASTM D5185m	>25	2	<1	0
Lead	ppm	ASTM D5185m	>50	<1	<1	<1
Copper	ppm	ASTM D5185m	>200	1	2	2
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

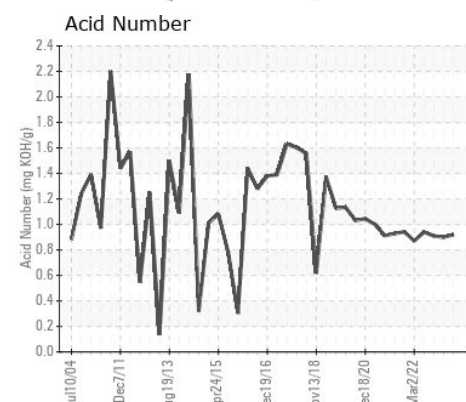
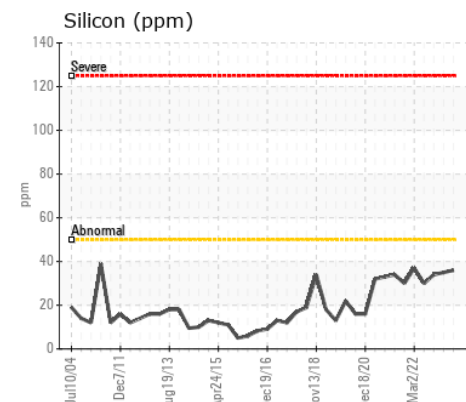
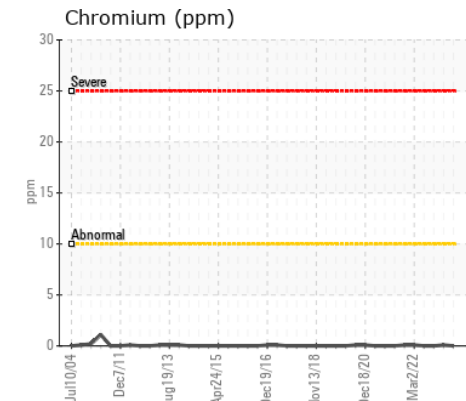
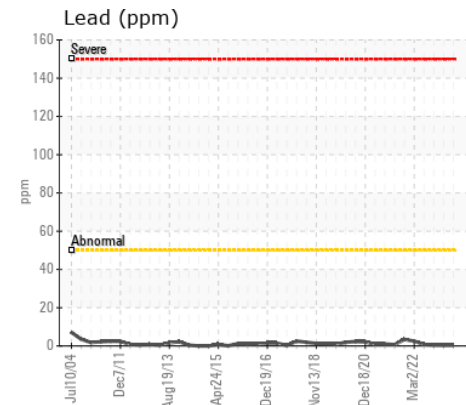
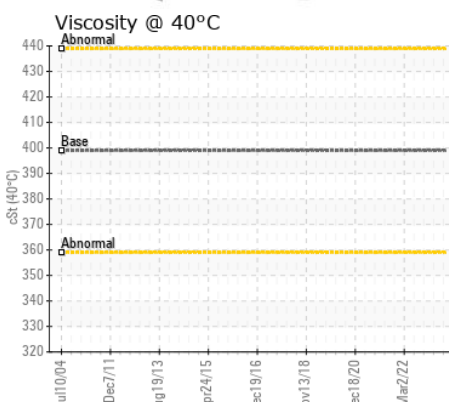
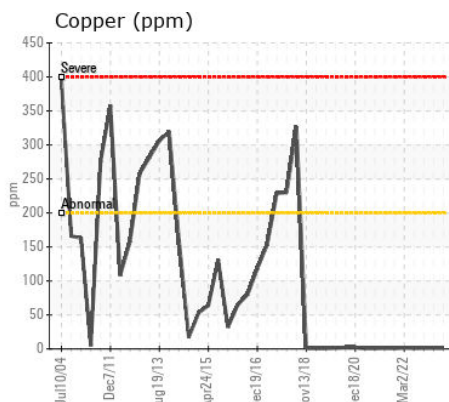
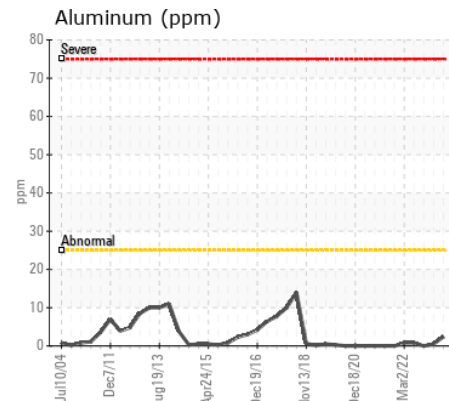
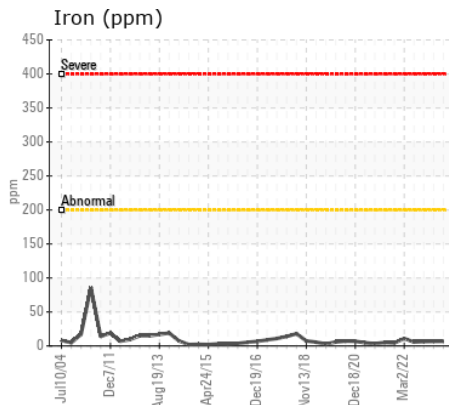
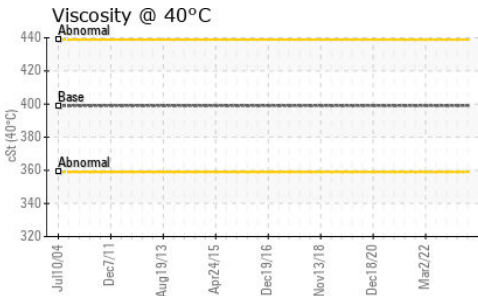
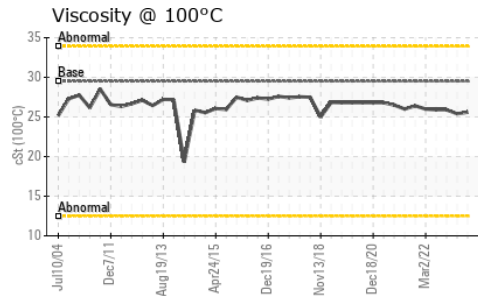
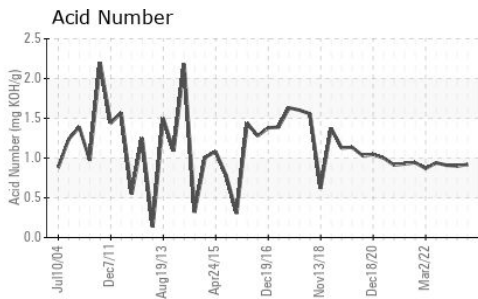
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	36	35	34
Potassium	ppm	ASTM D5185m	>20	1	<1	0
Water		WC Method	>0.2	NEG	NEG	NEG
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m		56	48	50
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		2	1	<1
Calcium	ppm	ASTM D5185m		106	100	101
Phosphorus	ppm	ASTM D5185m		740	696	688
Zinc	ppm	ASTM D5185m		0	1	2
Sulfur	ppm	ASTM D5185m		23117	21247	20341
Acid Number (AN)	mg KOH/g	ASTM D8045		0.92	0.90	0.91
Visc @ 40°C	cSt	ASTM D445	399	330	---	---
Visc @ 100°C	cSt	ASTM D445	29.5	25.6	25.4	25.9
Viscosity Index (VI)	Scale	ASTM D2270		100	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05939818
Lab Number : 05939818
Unique Number : 10630430
Test Package : MOB 2 (Additional Tests: KV100, VI)
Received : 31 Aug 2023
Tested : 01 Sep 2023
Diagnosed : 01 Sep 2023 - Wes Davis

CARLSTAR GROUP - FORMERLY CARLISLE TIRE
 520 JD YARNELL IND. PKWY
 CLINTON, TN
 US 37716
 Contact: JOHN GAINES

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: (865)463-3696