



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
12 - 1 EXTRUDER TWIN MILLS
 Component
Gearbox
 Fluid
TRC 890 VARI-PURPOSE 85W140 (175 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06122593	TR06029542	TR05939824
Sample Date		Client Info		13 Mar 2024	21 Nov 2023	30 Aug 2023
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				ATTENTION	NORMAL	NORMAL

WEAR

An increase in the iron level is noted. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	153	23	24
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	<1	3
Lead	ppm	ASTM D5185m	>50	<1	<1	2
Copper	ppm	ASTM D5185m	>200	23	18	18
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
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.

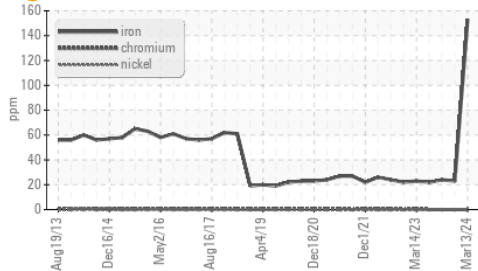
Silicon	ppm	ASTM D5185m	>50	35	31	26
Potassium	ppm	ASTM D5185m	>20	0	1	1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

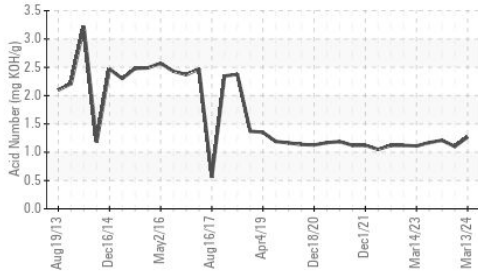
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m		14	13	14
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		<1	0	1
Calcium	ppm	ASTM D5185m		10	0	2
Phosphorus	ppm	ASTM D5185m		743	909	854
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		22680	20925	25056
Acid Number (AN)	mg KOH/g	ASTM D8045		1.27	1.10	1.21
Visc @ 40°C	cSt	ASTM D445	399	281	276	276
Visc @ 100°C	cSt	ASTM D445	29.5	22.8	22.8	22.9
Viscosity Index (VI)	Scale	ASTM D2270		99	101	101

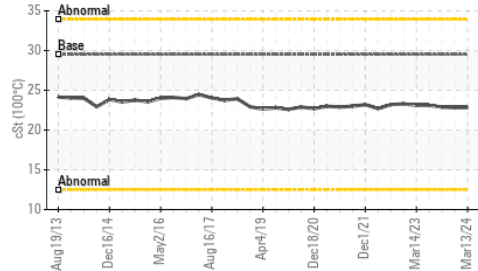
● Ferrous Alloys



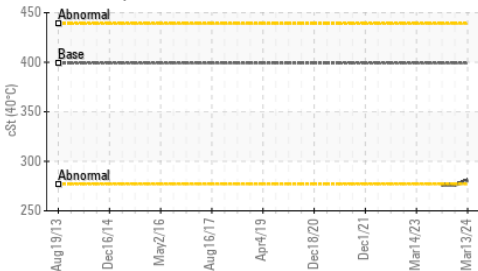
Acid Number



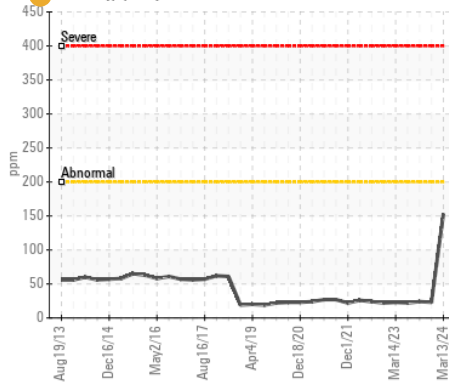
Viscosity @ 100°C



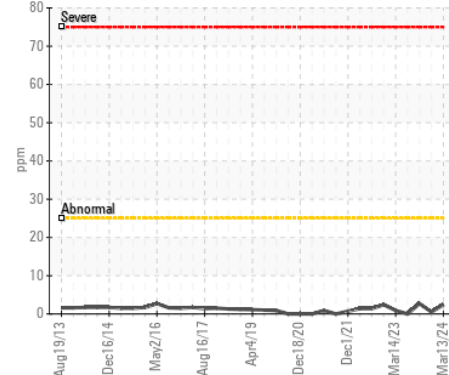
Viscosity @ 40°C



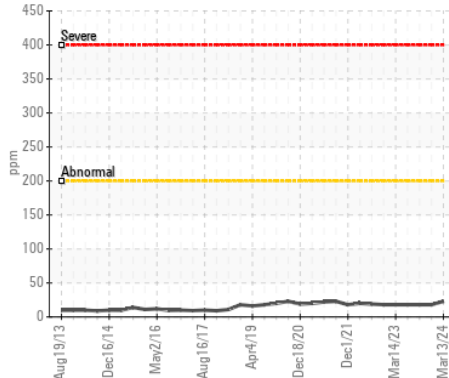
● Iron (ppm)



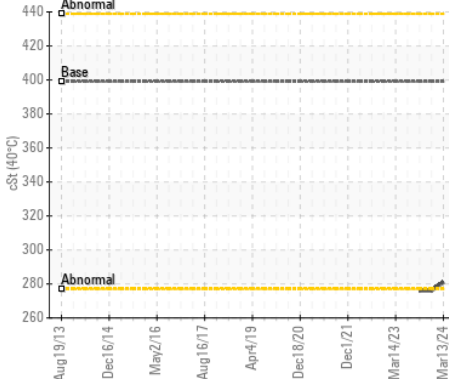
Aluminum (ppm)



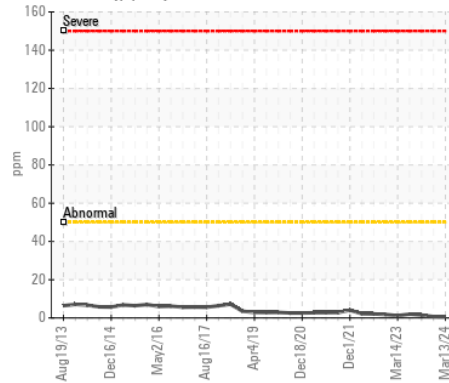
Copper (ppm)



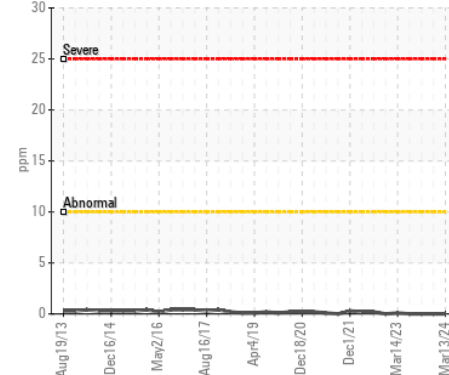
Viscosity @ 40°C



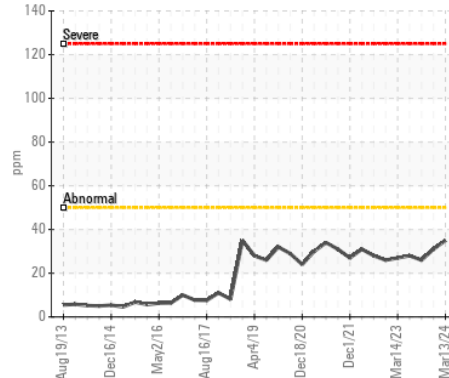
Lead (ppm)



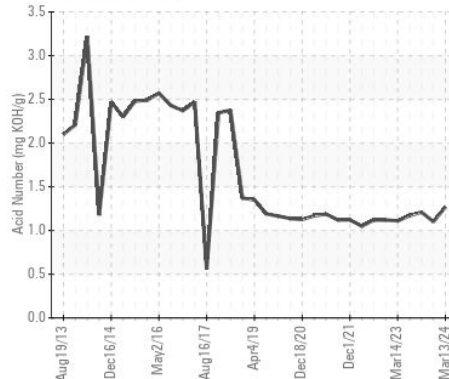
Chromium (ppm)



Silicon (ppm)



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06122593 **Received** : 19 Mar 2024
Lab Number : 06122593 **Tested** : 20 Mar 2024
Unique Number : 10936744 **Diagnosed** : 21 Mar 2024 - Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

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