



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CHRYSLER 2C4RC1CG3FR520057
 Component
Gasoline Engine
 Fluid
TRC PRO-SPEC SINGLE-VIS 30W (5 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06230911	TR05988708	TR05243770
Sample Date		Client Info		02 Jul 2024	11 Oct 2023	20 Apr 2021
Machine Age	mls	Client Info		97512	92568	72080
Oil Age	mls	Client Info		5000	3500	4700
Filter Age	mls	Client Info		5000	3500	4700
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	>150	8	3	13
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	3	2	2
Lead	ppm	ASTM D5185m	>50	0	0	<1
Copper	ppm	ASTM D5185m	>155	4	4	15
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

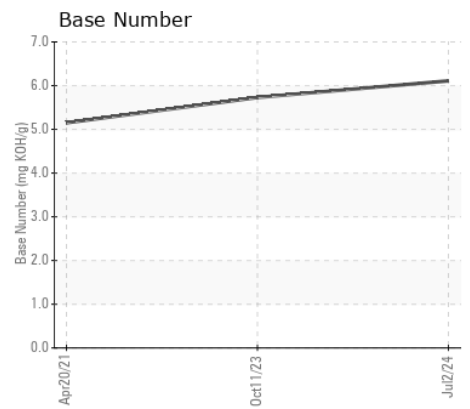
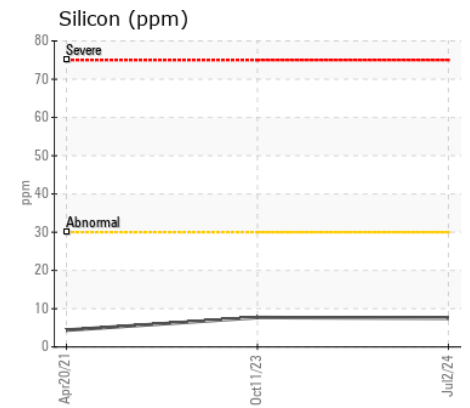
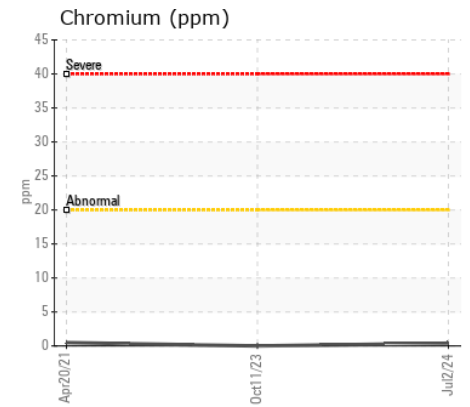
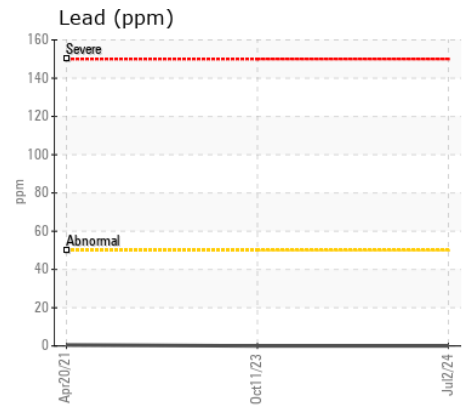
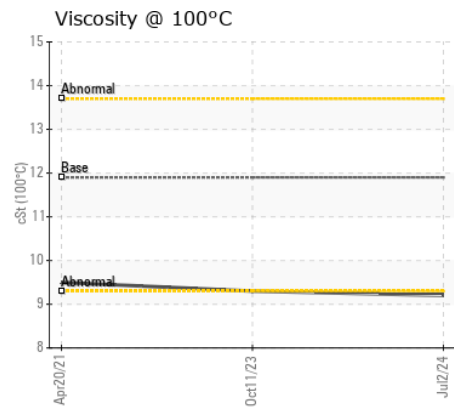
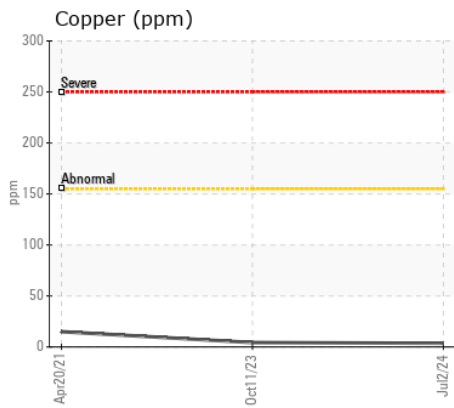
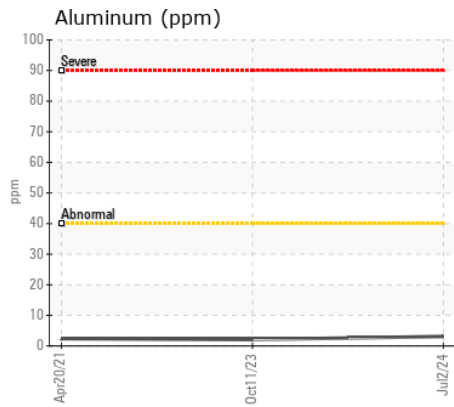
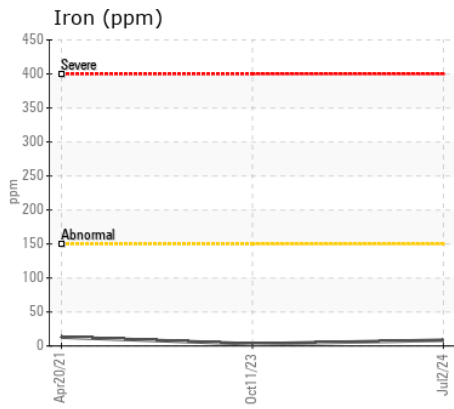
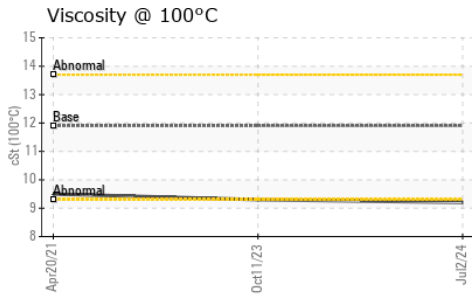
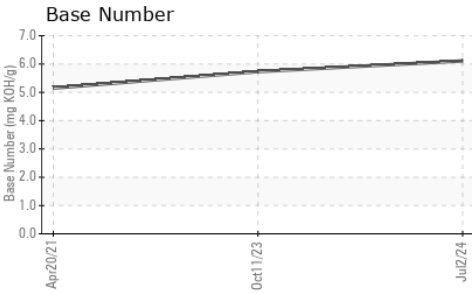
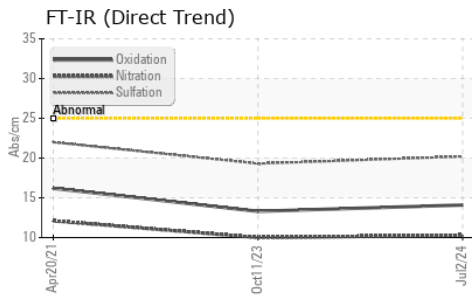
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	8	8	4
Potassium	ppm	ASTM D5185m	>20	2	0	2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0	0
Nitration	Abs/cm	*ASTM D7624	>20	10.3	10.0	12.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	19.3	22
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 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	>400	2	2	2
Boron	ppm	ASTM D5185m		41	48	38
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		150	143	147
Manganese	ppm	ASTM D5185m		<1	<1	2
Magnesium	ppm	ASTM D5185m		440	460	19
Calcium	ppm	ASTM D5185m		1281	1268	1954
Phosphorus	ppm	ASTM D5185m		623	496	647
Zinc	ppm	ASTM D5185m		812	802	796
Sulfur	ppm	ASTM D5185m		1960	1984	1873
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	13.3	16.2
Base Number (BN)	mg KOH/g	ASTM D2896		6.11	5.73	5.15
Visc @ 100°C	cSt	ASTM D445	11.9	9.2	9.3	9.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06230911
Lab Number : 06230911
Unique Number : 11114404
Test Package : MOB 2

Received : 08 Jul 2024
Tested : 10 Jul 2024
Diagnosed : 10 Jul 2024 - Sean Felton

HARLAN MUNNING
 212 COUNTY RD 1
 MT LAKE, MN
 US 56159
 Contact: HARLAN MUNNING

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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F: