



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**2016 CHEVROLET 93**

Component  
**Gasoline Engine**

Fluid  
**TRC PRO-SPEC MULTI VISC 5W30 (5 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TR06100301</b>	TR05896970	TR05794226
Sample Date		Client Info		<b>16 Nov 2023</b>	09 May 2023	03 Jan 2023
Machine Age	mls	Client Info		<b>84408</b>	78537	68990
Oil Age	mls	Client Info		<b>11453</b>	5582	11753
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>15</b>	10	20
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>40	<b>5</b>	3	3
Lead	ppm	ASTM D5185m	>50	<b>2</b>	2	3
Copper	ppm	ASTM D5185m	>155	<b>37</b>	26	44
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

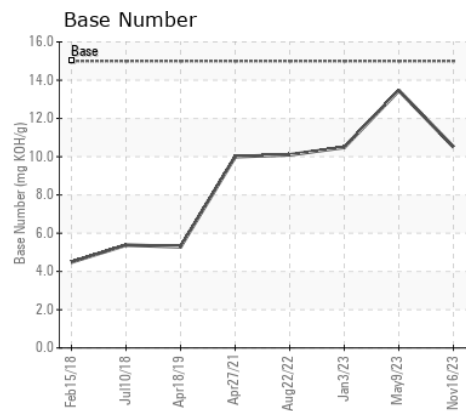
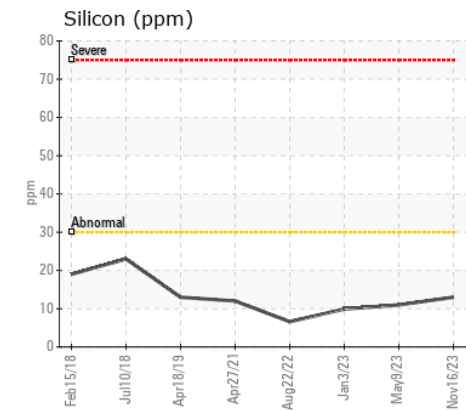
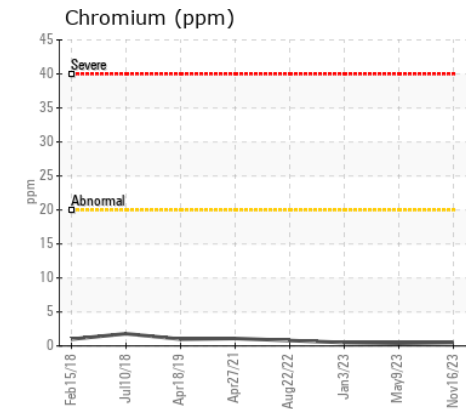
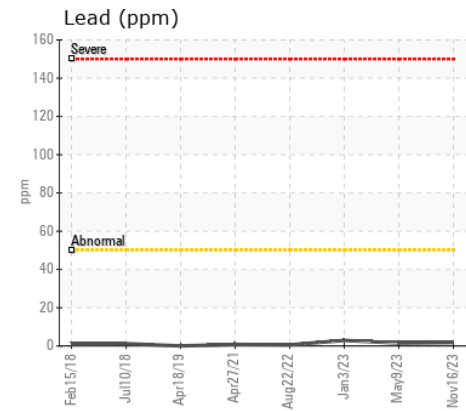
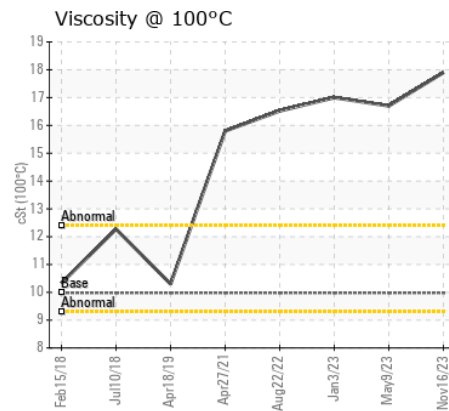
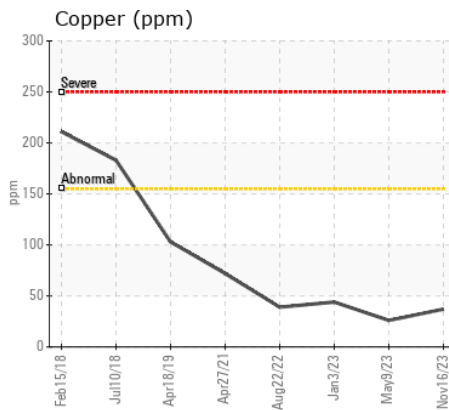
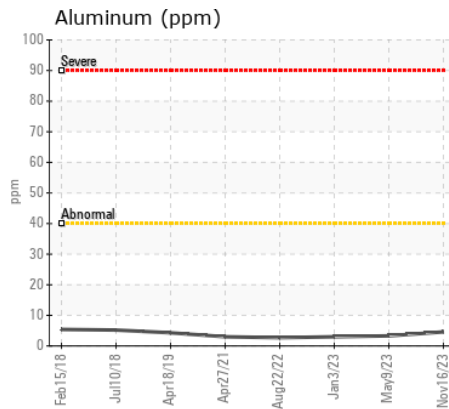
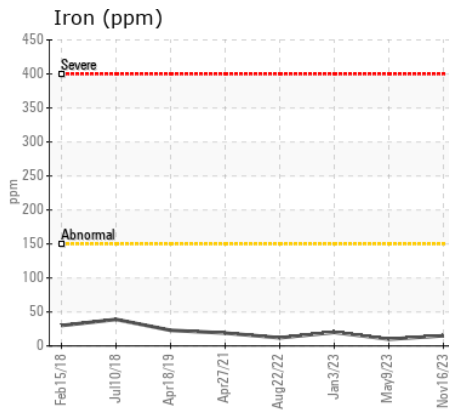
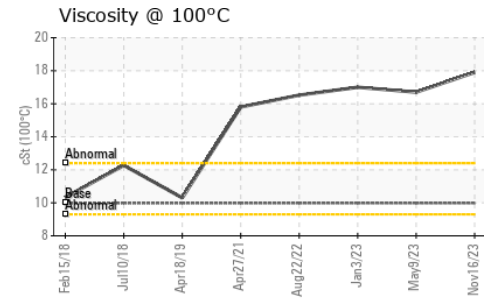
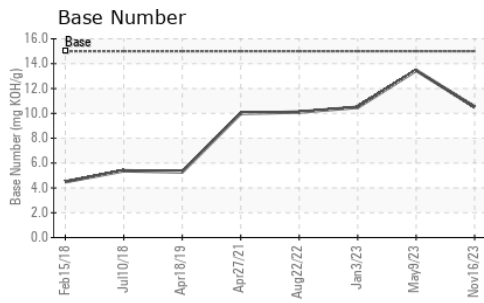
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>13</b>	11	10
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	5	2
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>15.9</b>	12.2	15.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>29.6</b>	24.5	29.4
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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	<b>5</b>	4	4
Boron	ppm	ASTM D5185m		<b>5</b>	0	1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>113</b>	109	103
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>20</b>	20	21
Calcium	ppm	ASTM D5185m	4200	<b>4098</b>	4166	3690
Phosphorus	ppm	ASTM D5185m	800	<b>771</b>	814	692
Zinc	ppm	ASTM D5185m	800	<b>1023</b>	1018	940
Sulfur	ppm	ASTM D5185m		<b>3815</b>	4704	3658
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>24.4</b>	18.4	23.7
Base Number (BN)	mg KOH/g	ASTM D2896	15	<b>10.51</b>	13.46	10.49
Visc @ 100°C	cSt	ASTM D445	9.98	<b>17.9</b>	16.7	17.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TR06100301

Lab Number : 06100301

Unique Number : 10898531

Test Package : MOB 2

Received : 26 Feb 2024

Tested : 27 Feb 2024

Diagnosed : 28 Feb 2024 - Jonathan Hester

COLORADO RIVER UNION HS

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US 86442

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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)