TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
CHEVROLET 3500HD T3 (S/N 1GCHK84609F139100)
Component
Diesel Engine
Fluid
NAPA CONVENTIONAL 15W40 (10 QTS)

RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

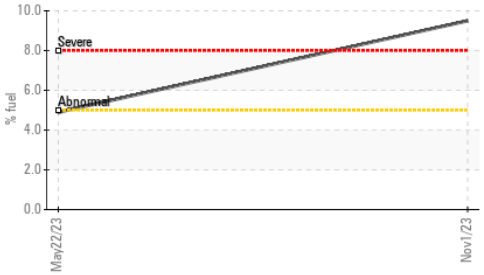
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

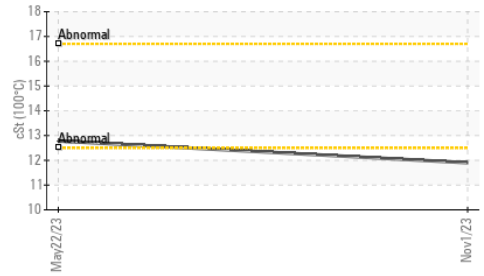
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06011666	TR05882857	---
Sample Date		Client Info		01 Nov 2023	22 May 2023	---
Machine Age	mls	Client Info		56846	55091	---
Oil Age	mls	Client Info		1755	4139	---
Filter Age	mls	Client Info		1755	4139	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				SEVERE	ABNORMAL	---
Iron	ppm	ASTM D5185m	>100	4	7	---
Chromium	ppm	ASTM D5185m	>20	0	0	---
Nickel	ppm	ASTM D5185m	>4	0	<1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	<1	<1	---
Lead	ppm	ASTM D5185m	>40	0	1	---
Copper	ppm	ASTM D5185m	>330	<1	<1	---
Tin	ppm	ASTM D5185m	>15	0	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	6	5	---
Potassium	ppm	ASTM D5185m	>20	0	1	---
Fuel	%	ASTM D3524	>5	▲ 9.5	▲ 4.9	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.5	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	8.9	7.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	20.1	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185m		2	0	---
Boron	ppm	ASTM D5185m		<1	0	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		52	57	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		848	835	---
Calcium	ppm	ASTM D5185m		922	1055	---
Phosphorus	ppm	ASTM D5185m		931	969	---
Zinc	ppm	ASTM D5185m		1095	1122	---
Sulfur	ppm	ASTM D5185m		2689	2773	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	17.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.53	8.4	---
Visc @ 100°C	cSt	ASTM D445		▲ 11.9	● 12.78	---

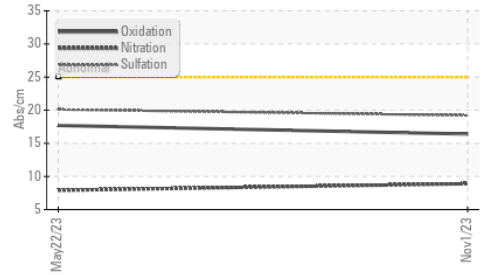
Fuel Dilution



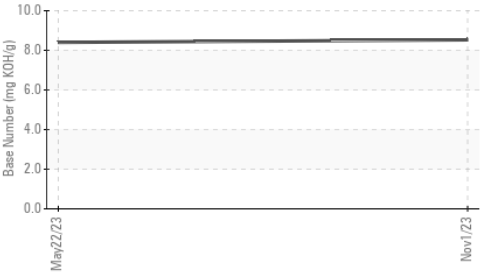
Viscosity @ 100°C



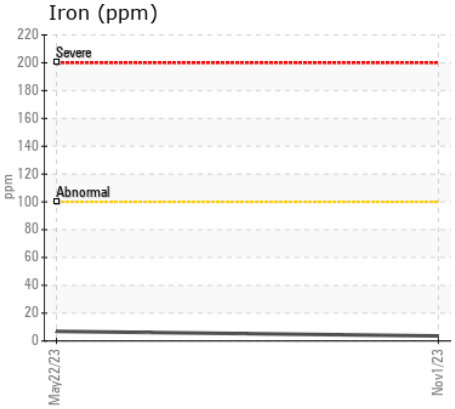
FT-IR (Direct Trend)



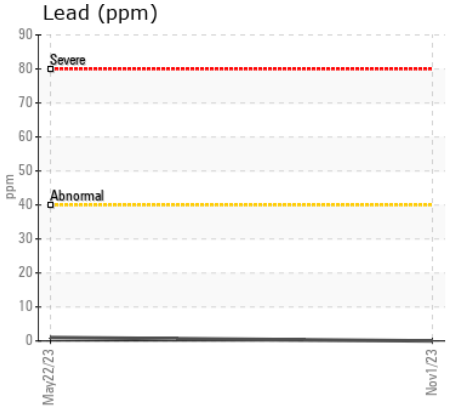
Base Number



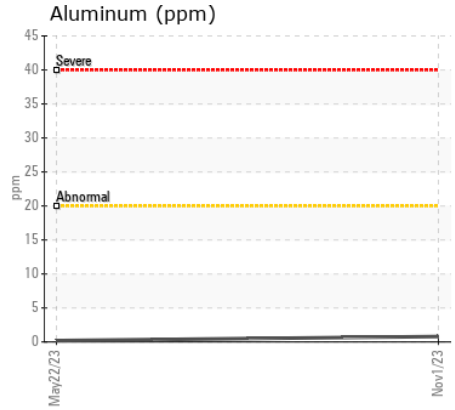
Iron (ppm)



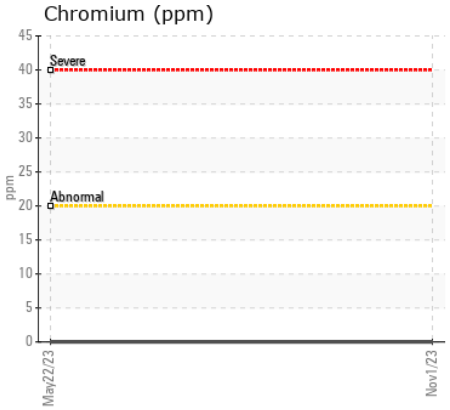
Lead (ppm)



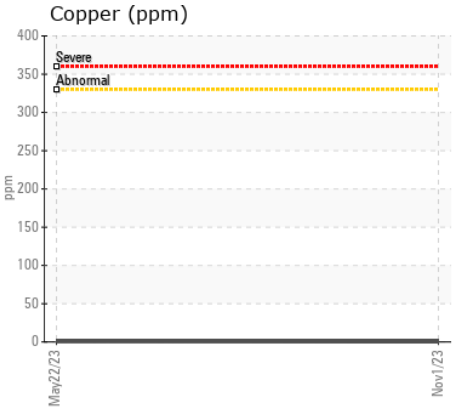
Aluminum (ppm)



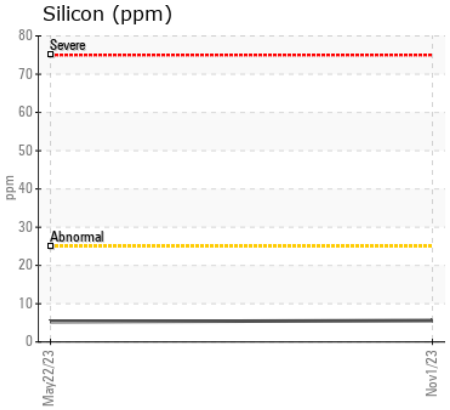
Chromium (ppm)



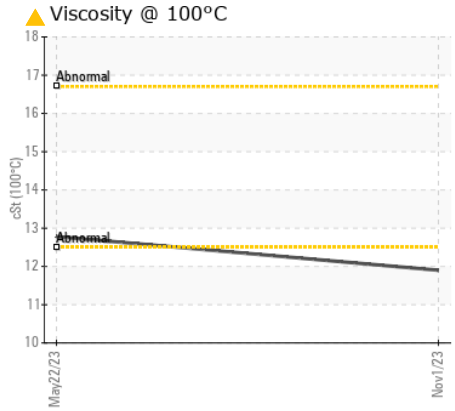
Copper (ppm)



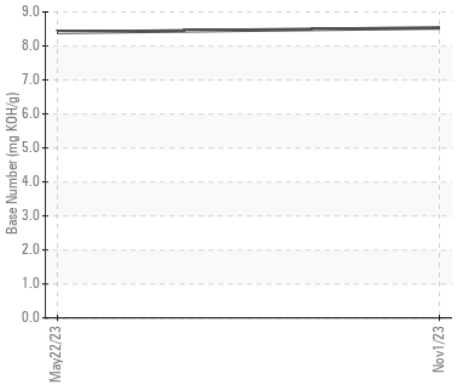
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06011666
Lab Number : 06011666
Unique Number : 10750810
Test Package : MOB 2 (Additional Tests: PercentFuel)

Received : 17 Nov 2023
Tested : 21 Nov 2023
Diagnosed : 21 Nov 2023 - Wes Davis

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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