TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FORD 2014 F350
Component
Gasoline Engine
Fluid
TRC PRO-SPEC MULTI-VIS SB 5W20 (7 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

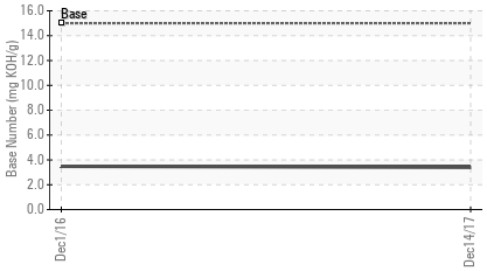
There is no indication of any contamination in the component.

FLUID CONDITION

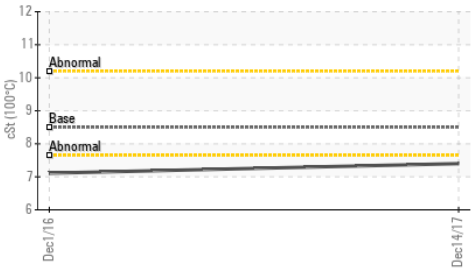
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR04374736	TR04139964	---
Sample Date		Client Info		14 Dec 2017	01 Dec 2016	---
Machine Age	mls	Client Info		26711	19224	---
Oil Age	mls	Client Info		7487	5626	---
Filter Age	mls	Client Info		7487	5626	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---
Iron	ppm	ASTM D5185m	>150	82	50	---
Chromium	ppm	ASTM D5185m	>20	2	1	---
Nickel	ppm	ASTM D5185m	>5	1	<1	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>40	13	10	---
Lead	ppm	ASTM D5185m	>50	<1	<1	---
Copper	ppm	ASTM D5185m	>155	5	5	---
Tin	ppm	ASTM D5185m	>10	0	4	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>30	9	7	---
Potassium	ppm	ASTM D5185m	>20	5	4	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		0	0	---
Nitration	Abs/cm	*ASTM D7624	>25	14.	12.	---
Sulfation	Abs/.1mm	*ASTM D7415	>35	27.	25.	---
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	>400	7	7	---
Boron	ppm	ASTM D5185m		22	25	---
Barium	ppm	ASTM D5185m		<1	<1	---
Molybdenum	ppm	ASTM D5185m		131	120	---
Manganese	ppm	ASTM D5185m		12	7	---
Magnesium	ppm	ASTM D5185m		25	16	---
Calcium	ppm	ASTM D5185m	4200	1693	1776	---
Phosphorus	ppm	ASTM D5185m	800	578	608	---
Zinc	ppm	ASTM D5185m	800	709	646	---
Sulfur	ppm	ASTM D5185m		1614	2005	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.	20.	---
Base Number (BN)	mg KOH/g	ASTM D2896	15	3.40	3.48	---
Visc @ 100°C	cSt	ASTM D445	8.5	7.4	7.11	---

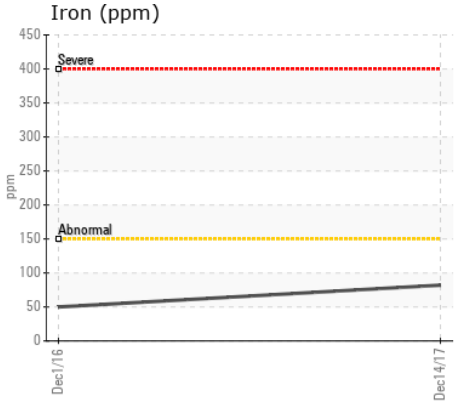
Base Number



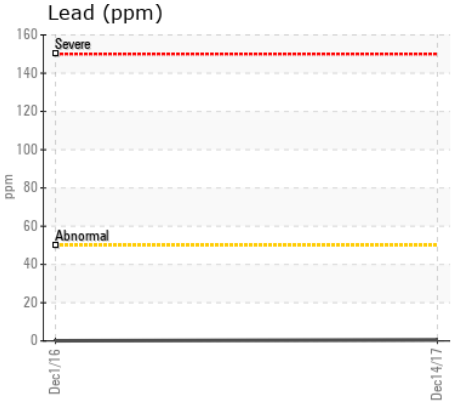
Viscosity @ 100°C



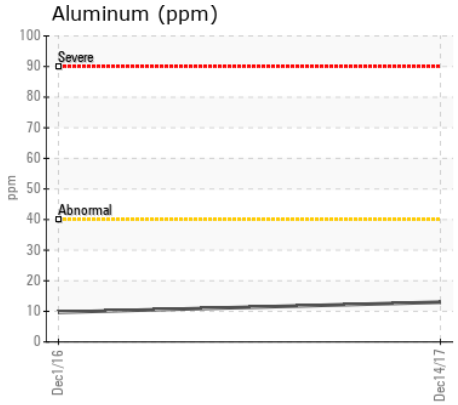
Iron (ppm)



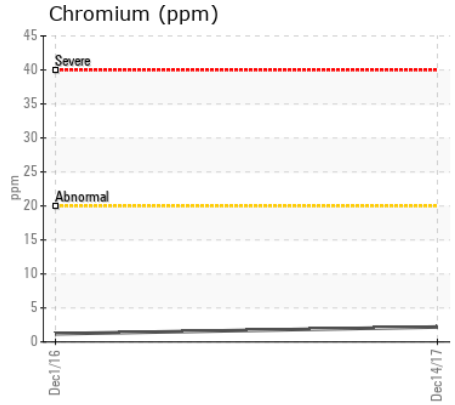
Lead (ppm)



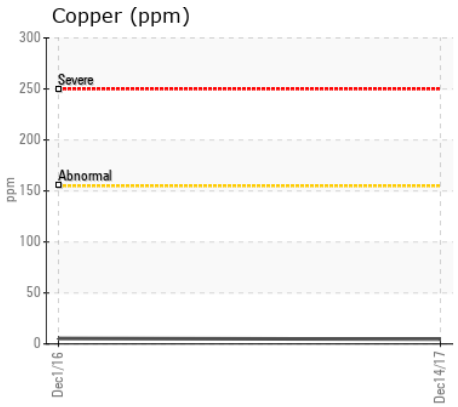
Aluminum (ppm)



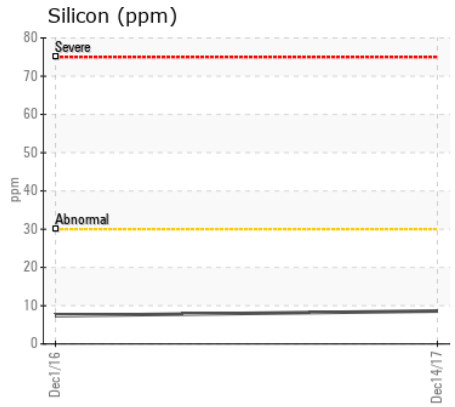
Chromium (ppm)



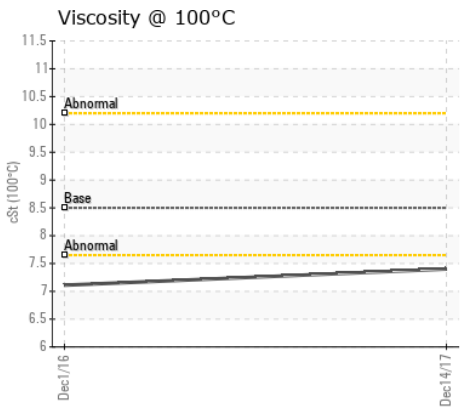
Copper (ppm)



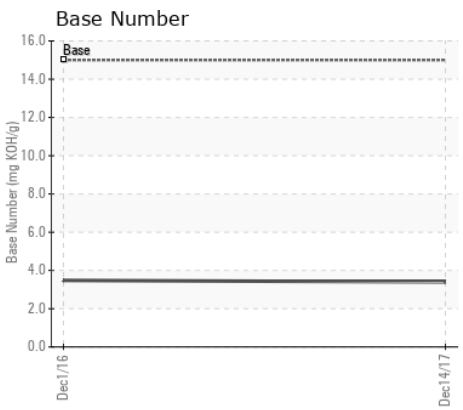
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR04374736
Lab Number : 04374736
Unique Number : 8043375
Test Package : MOB 2

Received : 26 Dec 2017
Tested : 29 Dec 2017
Diagnosed : 29 Dec 2017 - Doug Bogart

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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