TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CASE 5240 JJF1032237
Component
Diesel Engine
Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (18 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

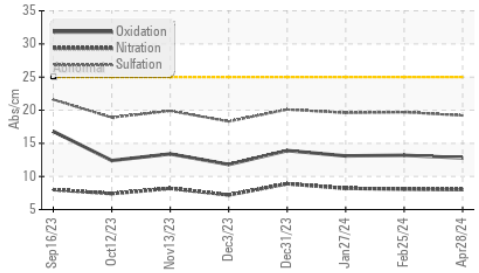
There is no indication of any contamination in the oil.

FLUID CONDITION

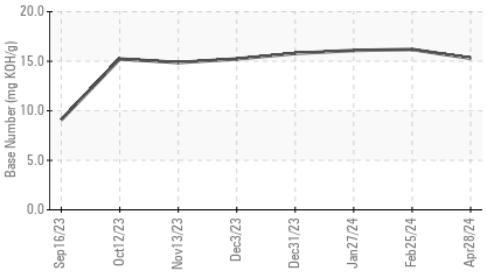
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06219928	TR06132263	TR06132267
Sample Date		Client Info		28 Apr 2024	25 Feb 2024	27 Jan 2024
Machine Age	hrs	Client Info		3232	2769	2317
Oil Age	hrs	Client Info		463	452	430
Filter Age	hrs	Client Info		463	452	430
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>90	24	26	26
Chromium	ppm	ASTM D5185m	>20	2	2	2
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	4	3	4
Lead	ppm	ASTM D5185m	>40	<1	2	2
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	8	8	12
Potassium	ppm	ASTM D5185m	>20	2	2	3
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.4	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.0	8.1	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	19.7	19.6
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
Sodium	ppm	ASTM D5185m		5	4	4
Boron	ppm	ASTM D5185m		4	1	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	2
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		32	22	40
Calcium	ppm	ASTM D5185m		5652	5353	5592
Phosphorus	ppm	ASTM D5185m		1057	979	957
Zinc	ppm	ASTM D5185m		1273	1166	1176
Sulfur	ppm	ASTM D5185m		5157	4380	4246
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.8	13.2	13.1
Base Number (BN)	mg KOH/g	ASTM D2896		15.30	16.19	16.09
Visc @ 100°C	cSt	ASTM D445	15.5	14.8	15.1	15.2

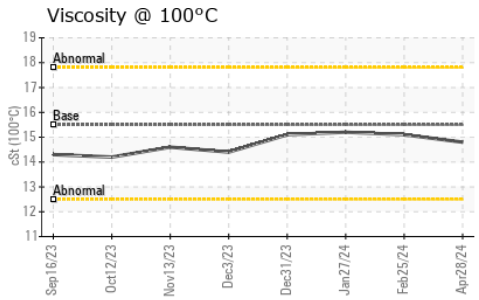
FT-IR (Direct Trend)



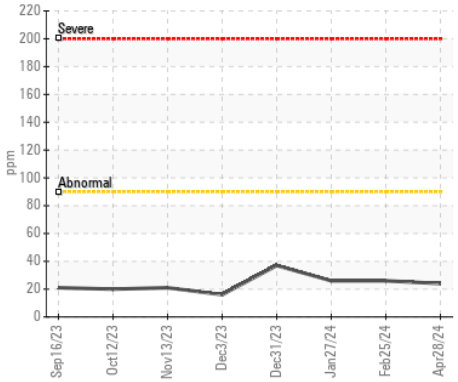
Base Number



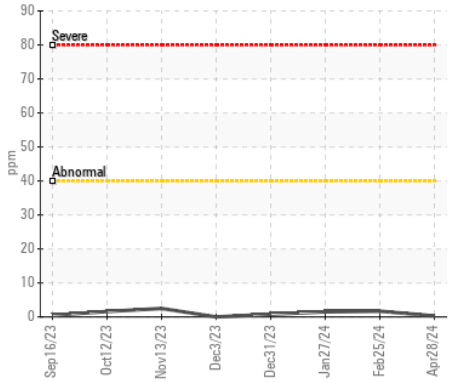
Viscosity @ 100°C



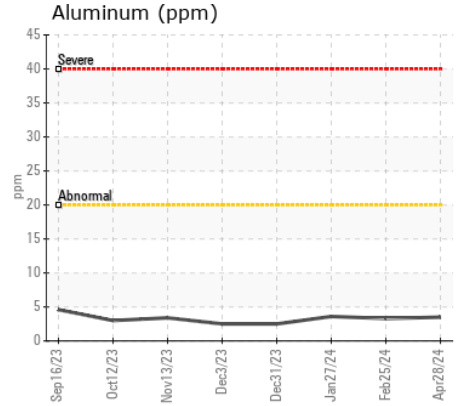
Iron (ppm)



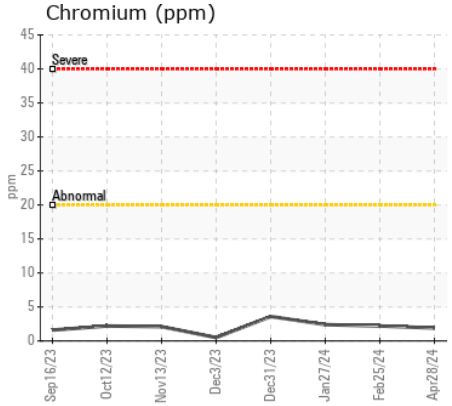
Lead (ppm)



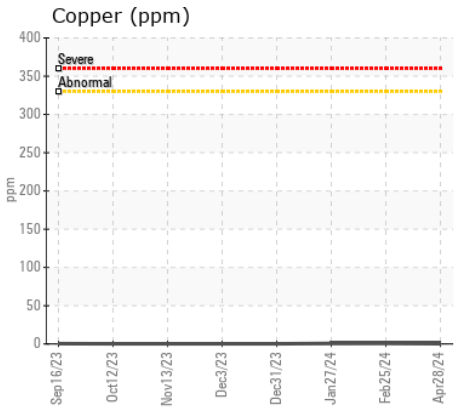
Aluminum (ppm)



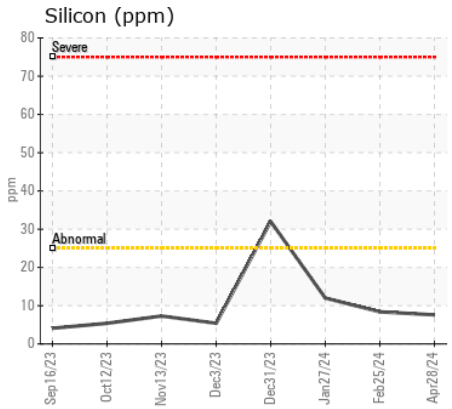
Chromium (ppm)



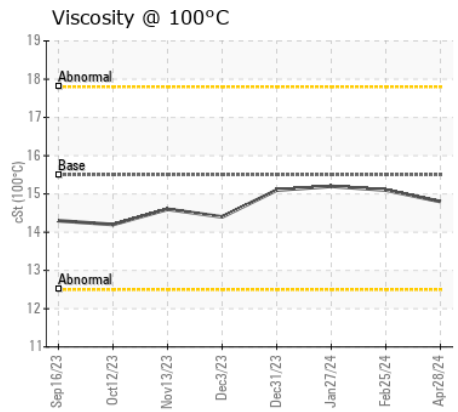
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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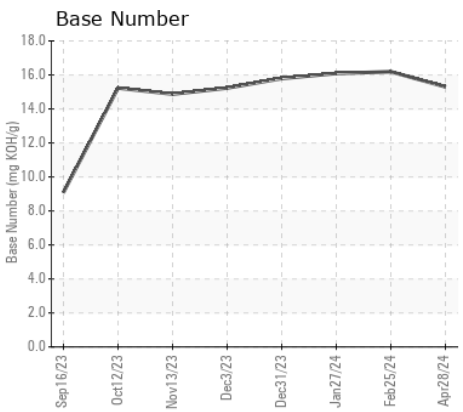

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06219928
Lab Number : 06219928
Unique Number : 11098125
Test Package : MOB 2

Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 26 Jun 2024 - Wes Davis

DOUBLE S DAIRIES

HARTLEY, TX
US 79044
Contact: MIKE LEWIS

T:
F:

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)