TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
PETERBILT 4
Component
Diesel Engine
Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

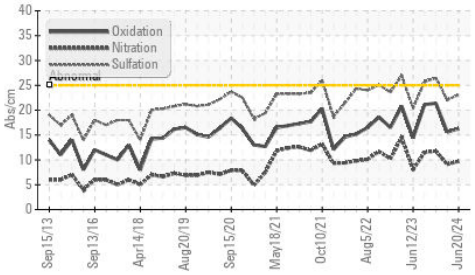
There is no indication of any contamination in the oil.

FLUID CONDITION

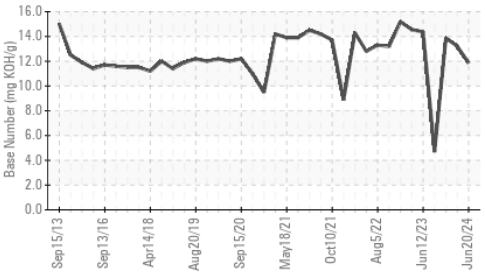
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06235156	TR06124390	TR06033649
Sample Date		Client Info		20 Jun 2024	10 Mar 2024	12 Dec 2023
Machine Age	mls	Client Info		0	196000	203000
Oil Age	mls	Client Info		47000	20000	90000
Filter Age	mls	Client Info		21000	20000	16000
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>110	24	16	33
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	1	2
Lead	ppm	ASTM D5185m	>45	<1	<1	4
Copper	ppm	ASTM D5185m	>85	10	12	44
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>30	4	3	5
Potassium	ppm	ASTM D5185m	>20	32	28	92
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.7	9.1	11.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	22.1	26.5
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		15	21	49
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		13	4	12
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		33	28	26
Calcium	ppm	ASTM D5185m		4960	5208	5300
Phosphorus	ppm	ASTM D5185m		923	995	1046
Zinc	ppm	ASTM D5185m		1077	1166	1243
Sulfur	ppm	ASTM D5185m		3552	4995	4420
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	15.6	21.4
Base Number (BN)	mg KOH/g	ASTM D2896		11.86	13.21	13.87
Visc @ 100°C	cSt	ASTM D445	15.5	14.2	13.8	14.5

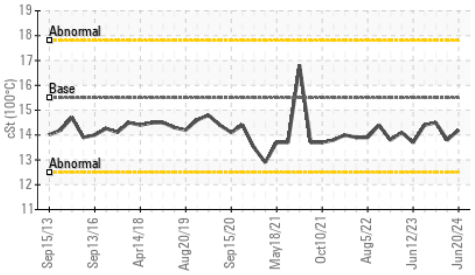
FT-IR (Direct Trend)



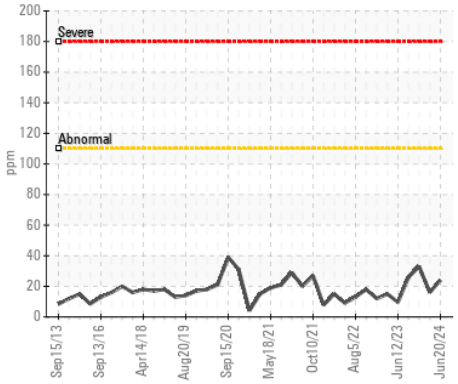
Base Number



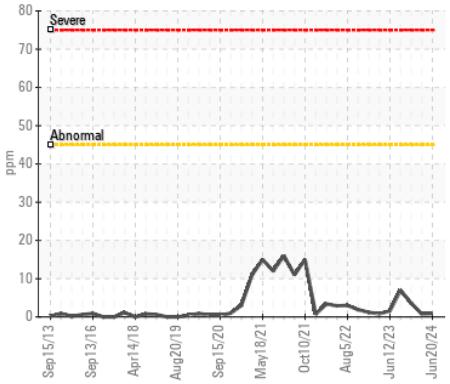
Viscosity @ 100°C



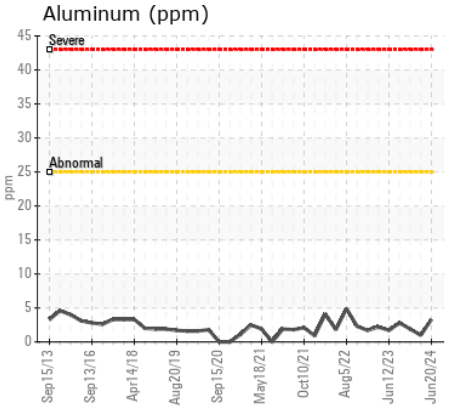
Iron (ppm)



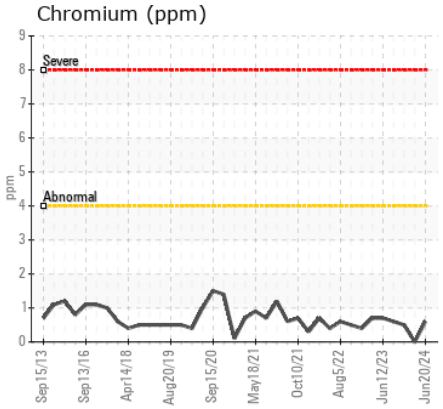
Lead (ppm)



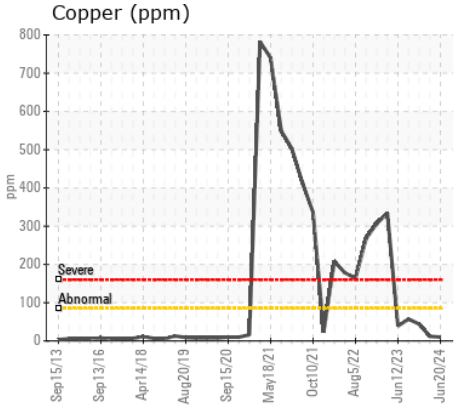
Aluminum (ppm)



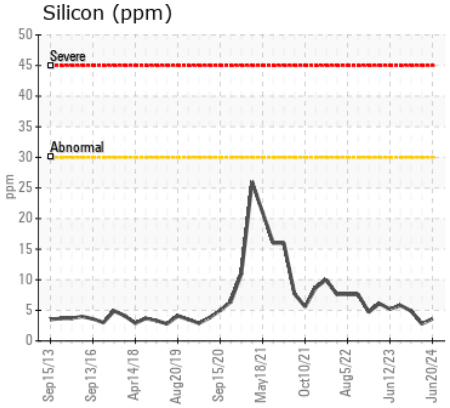
Chromium (ppm)



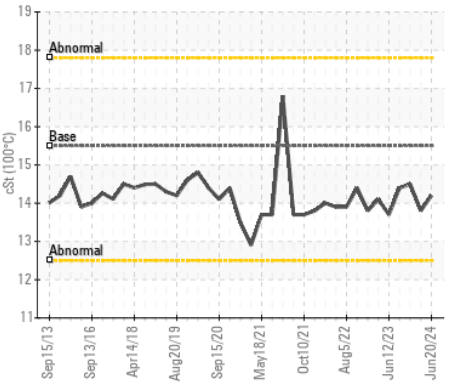
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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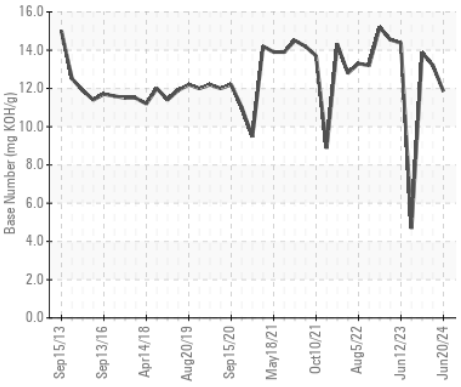

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06235156
Lab Number : 06235156
Unique Number : 11123990
Test Package : MOB 2

Received : 12 Jul 2024
Tested : 15 Jul 2024
Diagnosed : 15 Jul 2024 - 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)

BRET AUSTIN
833 CR 23110
PARIS, TX
US 75460
Contact: MIKE LEWIS

T:
F: