TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
KENWORTH 254178
Component
Diesel Engine
Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (13 GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

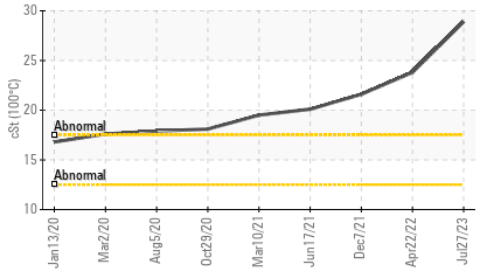
There is no indication of any contamination in the oil.

FLUID CONDITION

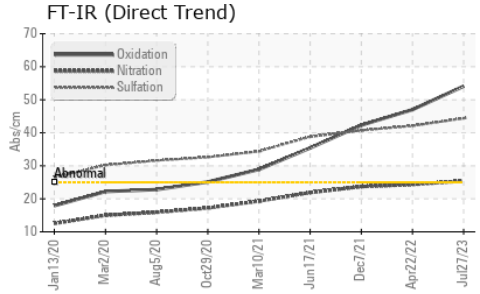
The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06157127	TR05570619	TR05432466
Sample Date		Client Info		27 Jul 2023	22 Apr 2022	07 Dec 2021
Machine Age	mls	Client Info		0	191792	163981
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	78	64	61
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	10	9	9
Lead	ppm	ASTM D5185m	>40	<1	2	2
Copper	ppm	ASTM D5185m	>330	13	14	12
Tin	ppm	ASTM D5185m	>15	2	1	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	17	13	13
Potassium	ppm	ASTM D5185m	>20	34	29	32
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	1.4	1.3	1
Nitration	Abs/cm	*ASTM D7624	>20	25.4	24.3	23.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	44.4	42.1	40.7
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	2	3
Boron	ppm	ASTM D5185m		4	6	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		126	125	133
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		116	68	70
Calcium	ppm	ASTM D5185m		4313	4329	4846
Phosphorus	ppm	ASTM D5185m		1054	935	1009
Zinc	ppm	ASTM D5185m		1238	1144	1197
Sulfur	ppm	ASTM D5185m		4724	4141	3804
Oxidation	Abs/.1mm	*ASTM D7414	>25	54.1	47.0	42.3
Base Number (BN)	mg KOH/g	ASTM D2896		6.66	7.09	8.05
Visc @ 100°C	cSt	ASTM D445		▲ 28.9	▲ 23.8	▲ 21.6

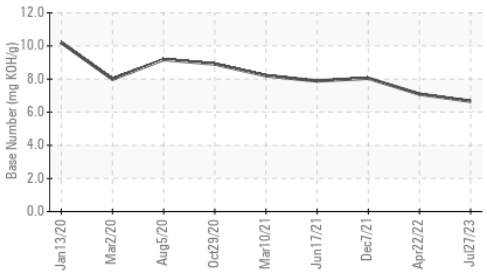
Viscosity @ 100°C



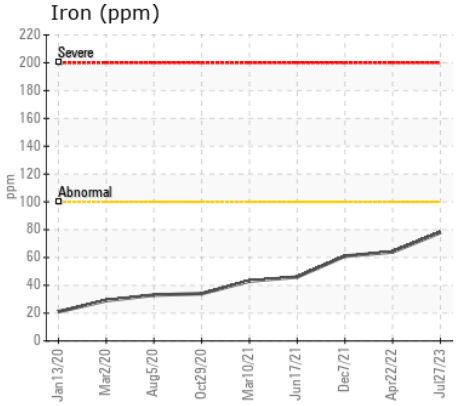
FT-IR (Direct Trend)



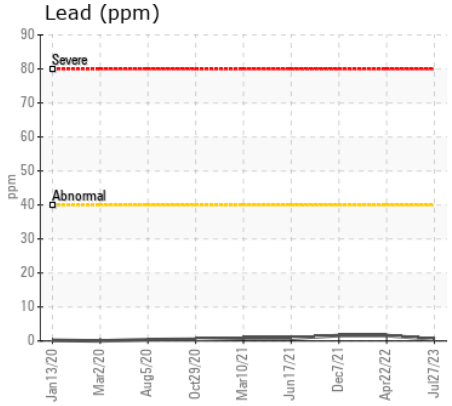
Base Number



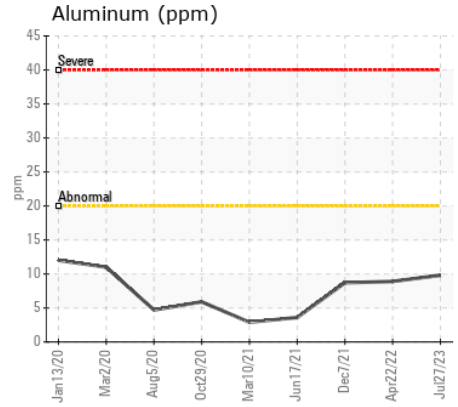
Iron (ppm)



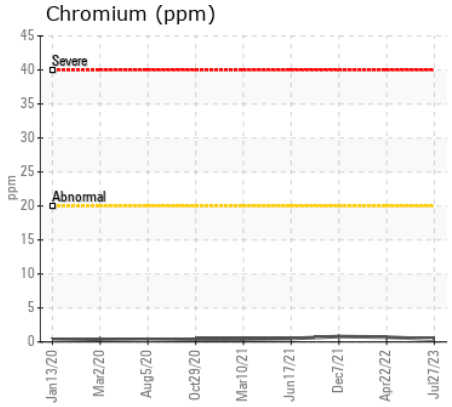
Lead (ppm)



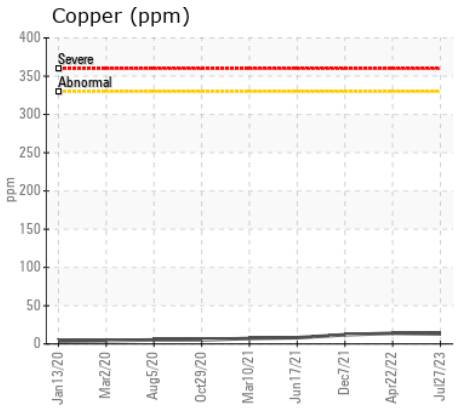
Aluminum (ppm)



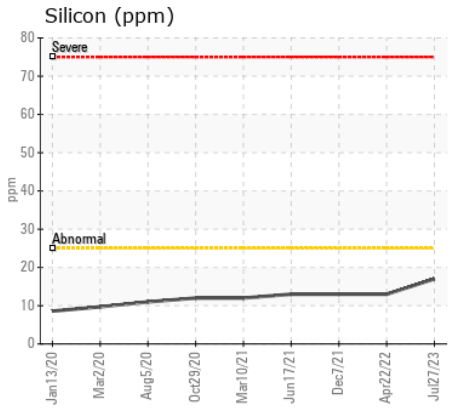
Chromium (ppm)



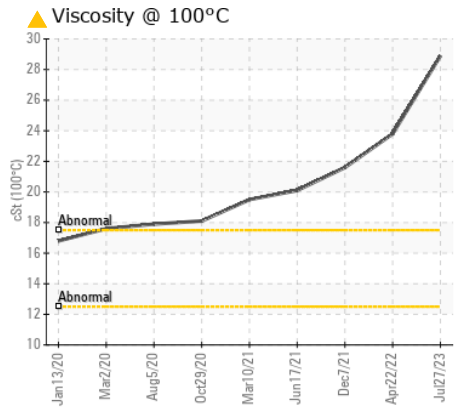
Copper (ppm)



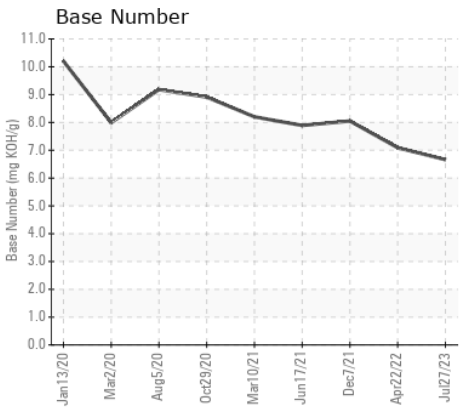
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06157127
Lab Number : 06157127
Unique Number : 10992550
Test Package : MOB 2

Received : 22 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 25 Apr 2024 - Jonathan Hester

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)

BENNETT BUILDING SERVICES
1660 DIXON AIRLINE RD
AUGUSTA, GA
US 30809
Contact: STEVE MATSON
HSMATSON@YAHOO.COM
T:
F: