



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KENWORTH TRUCK 2
 Component
Diesel Engine
 Fluid
TRC PRO-SPEC IV XP SYN BLEND 15W40 (25 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06149601	TR06071183	TR05896979
Sample Date		Client Info		09 Apr 2024	18 Jan 2024	12 Jul 2023
Machine Age	mls	Client Info		127500	119958	98500
Oil Age	mls	Client Info		22500	15000	16000
Filter Age	mls	Client Info		22500	15000	16000
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	35	26	28
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	10	7	10
Lead	ppm	ASTM D5185m	>40	0	2	<1
Copper	ppm	ASTM D5185m	>330	8	6	16
Tin	ppm	ASTM D5185m	>15	1	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

CONTAMINATION

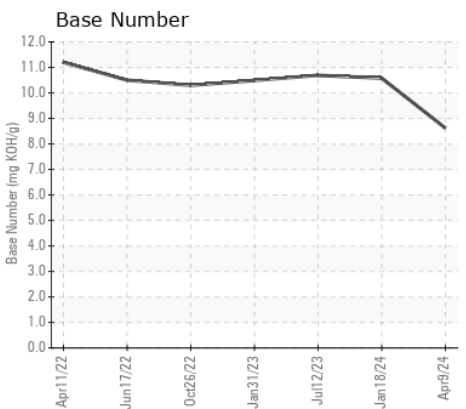
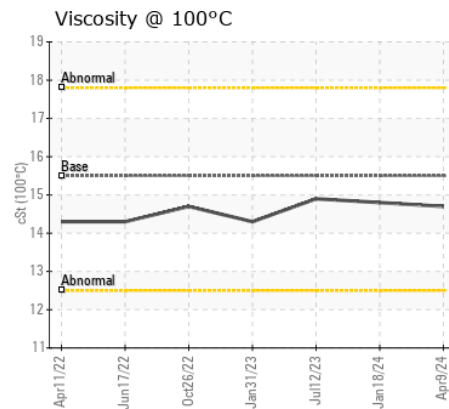
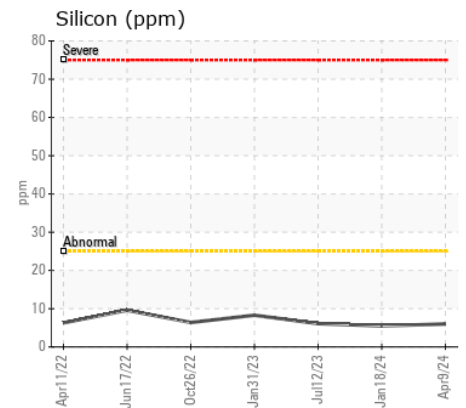
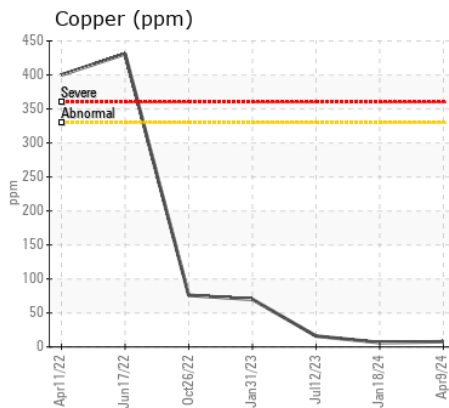
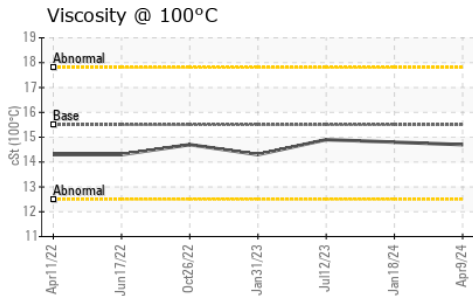
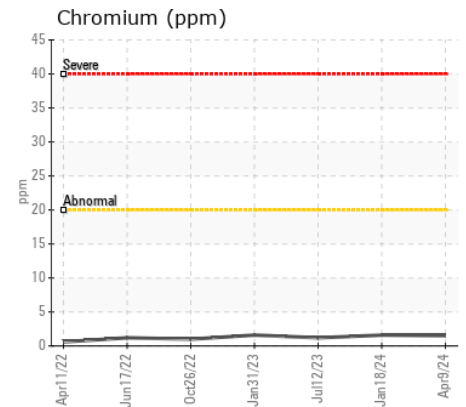
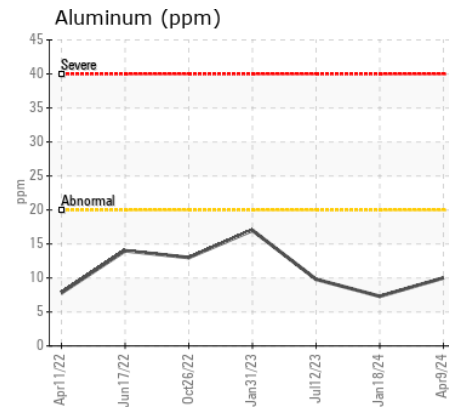
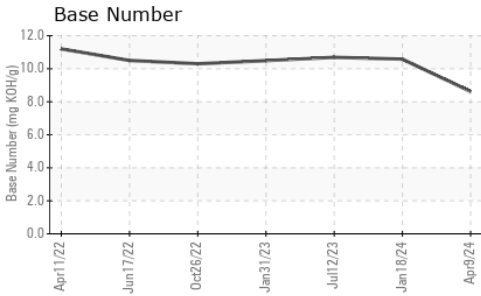
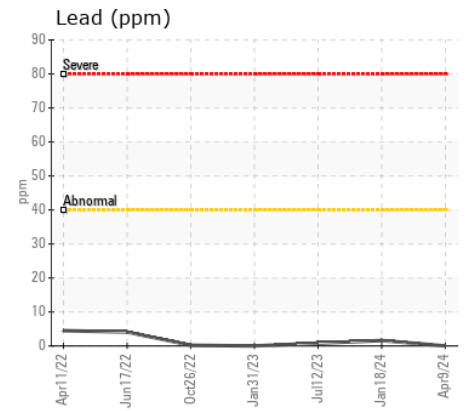
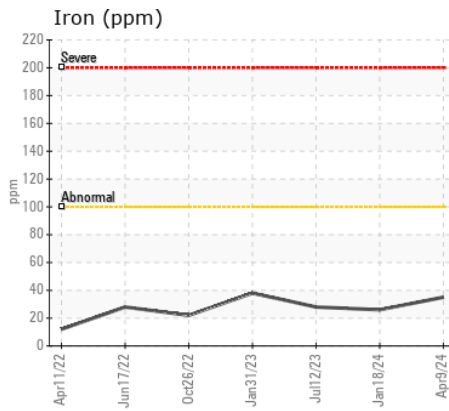
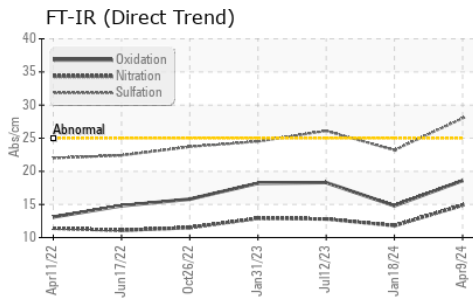
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	6	6
Potassium	ppm	ASTM D5185m	>20	17	16	21
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	0.9	0.6	0.8
Nitration	Abs/cm	*ASTM D7624	>20	14.9	11.8	12.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.0	23.2	26.1
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

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.

Sodium	ppm	ASTM D5185m		7	6	7
Boron	ppm	ASTM D5185m		0	<1	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	4	2
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		18	4	24
Calcium	ppm	ASTM D5185m		3781	3986	3861
Phosphorus	ppm	ASTM D5185m		836	873	839
Zinc	ppm	ASTM D5185m		936	1031	1015
Sulfur	ppm	ASTM D5185m		4269	3715	4463
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.6	14.8	18.3
Base Number (BN)	mg KOH/g	ASTM D2896		8.62	10.58	10.69
Visc @ 100°C	cSt	ASTM D445	15.5	14.7	14.8	14.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06149601
Lab Number : 06149601
Unique Number : 10979679
Test Package : MOB 2
Received : 15 Apr 2024
Tested : 16 Apr 2024
Diagnosed : 16 Apr 2024 - Wes Davis

E-Z ROLL OFF CONTAINERS - CLARK KOEHN
 15910 CENFIELD ST NE
 ALLIANCE, OH
 US 44601
 Contact: RICKY UNRAH

Certificate L2367
 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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