



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
ROTOCHOPPER B66 ROTOCHOPPER-G02 17-2981

Component
Diesel Engine

Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (14 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06189780	TR06121752	TR06101171
Sample Date		Client Info		20 May 2024	28 Feb 2024	20 Feb 2024
Machine Age	hrs	Client Info		7957	7741	7735
Oil Age	hrs	Client Info		216	1	271
Filter Age	hrs	Client Info		216	1	271
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	34	8	23
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	3	3	3
Lead	ppm	ASTM D5185m	>40	<1	<1	4
Copper	ppm	ASTM D5185m	>330	5	<1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

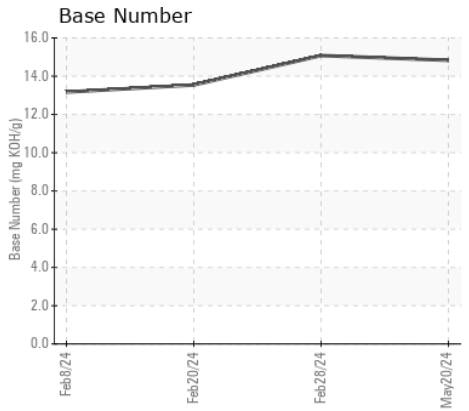
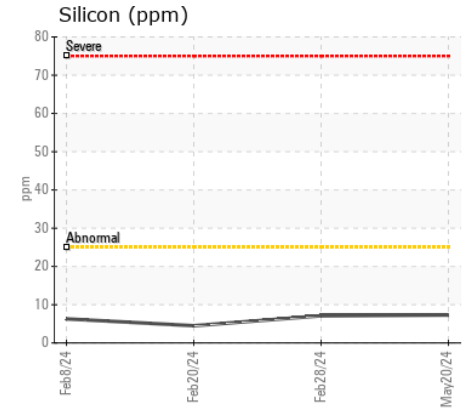
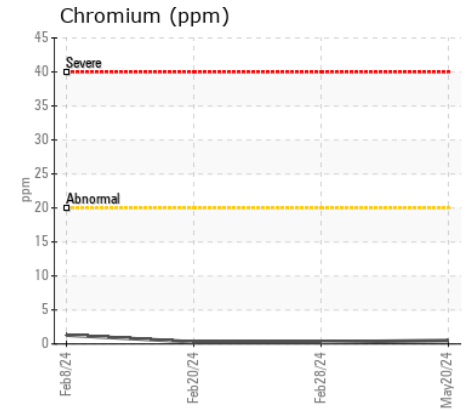
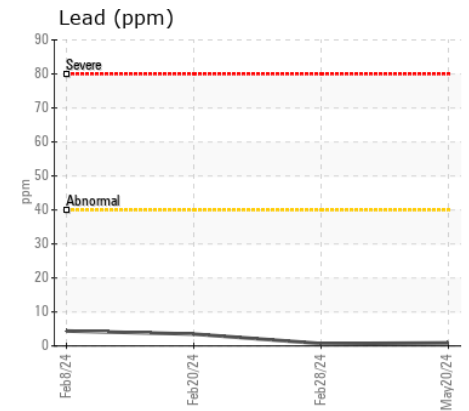
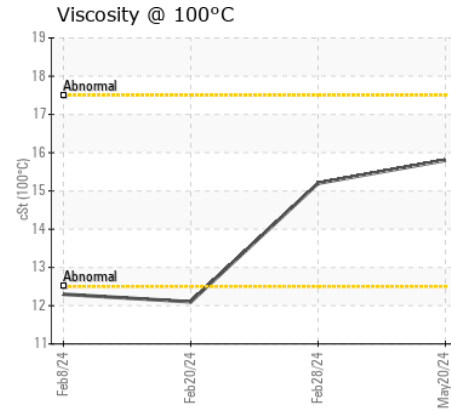
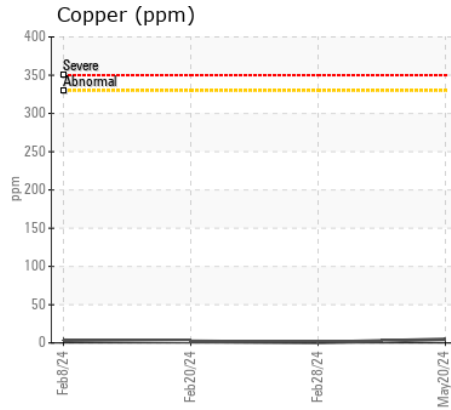
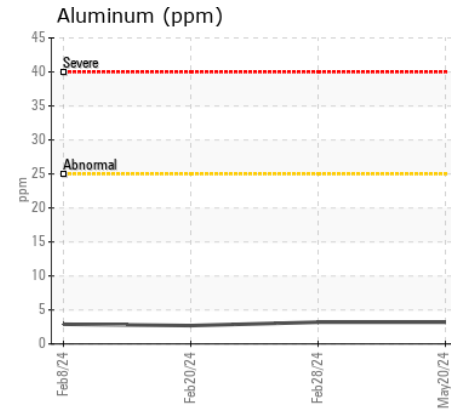
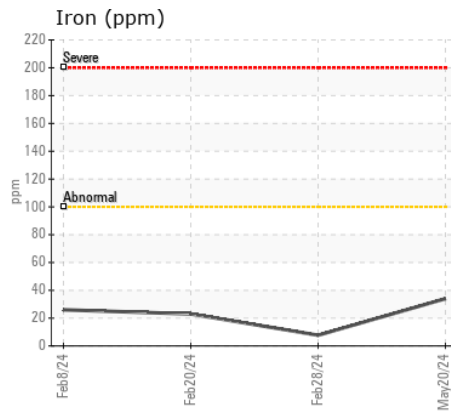
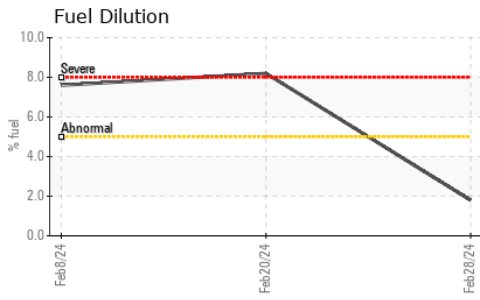
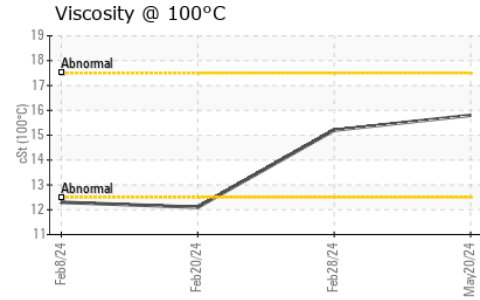
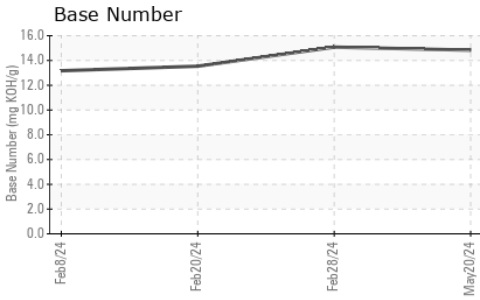
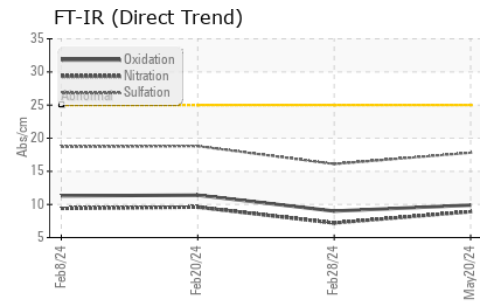
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	7	4
Potassium	ppm	ASTM D5185m	>20	3	2	0
Fuel	%	ASTM D3524	>5	<1.0	1.8	▲ 8.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.9	7.2	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.8	16.1	18.8
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		2	2	0
Boron	ppm	ASTM D5185m		5	6	21
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		128	120	108
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		31	30	99
Calcium	ppm	ASTM D5185m		3737	3584	3240
Phosphorus	ppm	ASTM D5185m		790	823	738
Zinc	ppm	ASTM D5185m		960	953	928
Sulfur	ppm	ASTM D5185m		3922	4001	3511
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.9	9.0	11.4
Base Number (BN)	mg KOH/g	ASTM D2896		14.83	15.08	13.54
Visc @ 100°C	cSt	ASTM D445		15.8	15.2	12.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06189780 **Received** : 23 May 2024
Lab Number : 06189780 **Tested** : 29 May 2024
Unique Number : 11046532 **Diagnosed** : 29 May 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution)

BARR-TECH COMPOSTING
 9117 KALLENBERGER RD N
 SPRAGUE, WA
 US 99032
 Contact: RON GROGAN

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)

T: (509)590-0437

F: