



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
BLUE BIRD 51E
 Component
Diesel Engine
 Fluid
TRC PRO-SPEC IV XP SYN BLEND SAE 10W30 (8 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06150619	TR05805721	TR05273770
Sample Date		Client Info		28 Feb 2024	16 Mar 2023	26 May 2021
Machine Age	mls	Client Info		41141	35754	15330
Oil Age	mls	Client Info		0	0	10000
Filter Age	mls	Client Info		0	0	10000
Oil Changed		Client Info		Not Changd	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	36	20	43
Chromium	ppm	ASTM D5185m	>20	3	1	3
Nickel	ppm	ASTM D5185m	>4	2	1	2
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	8	4	4
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	3	1	6
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

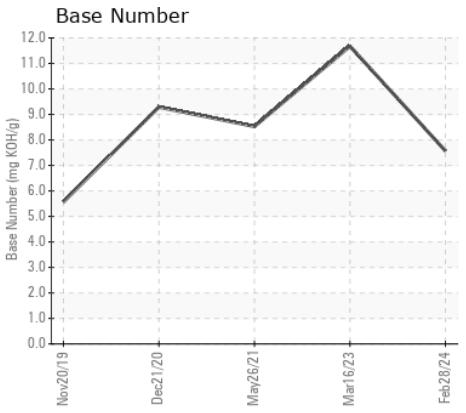
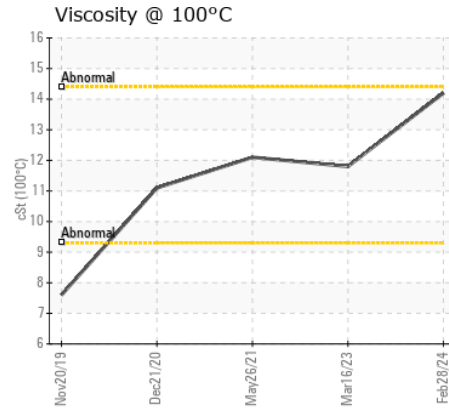
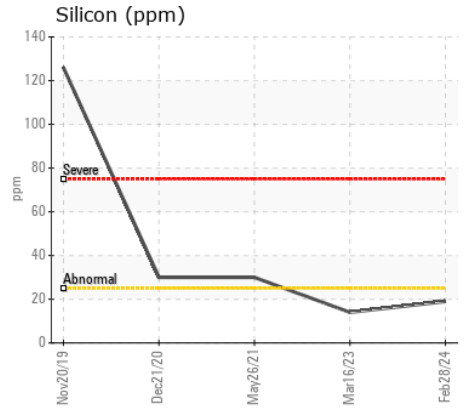
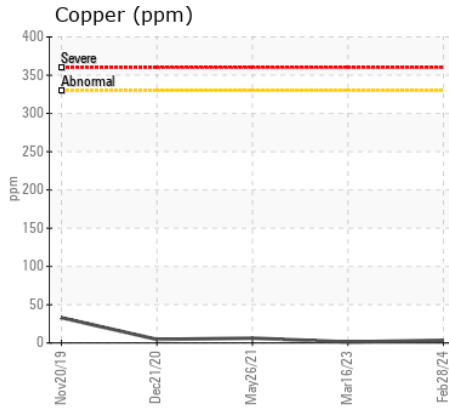
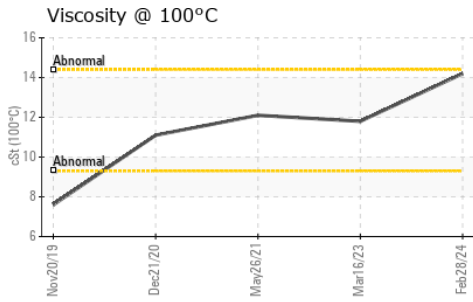
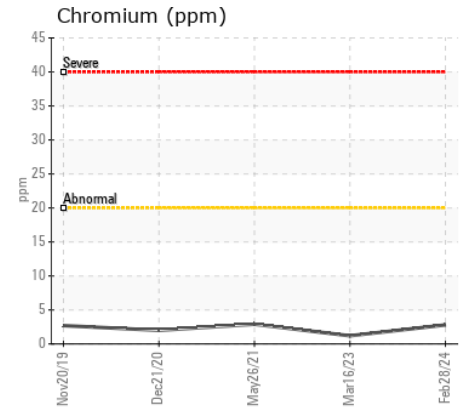
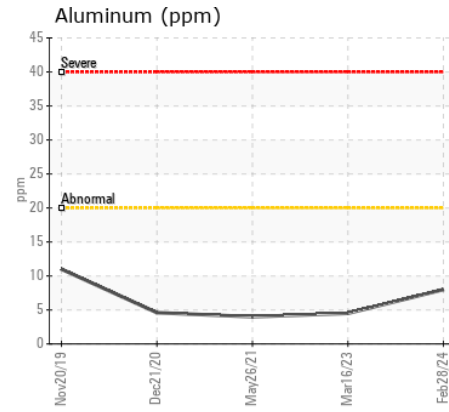
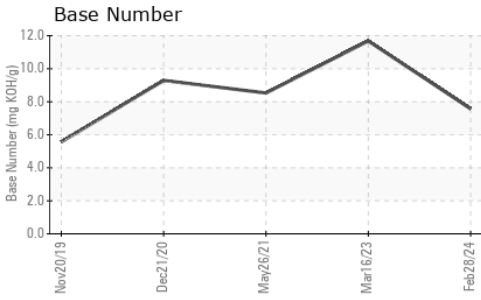
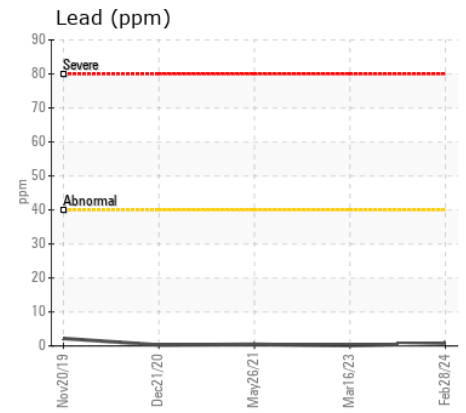
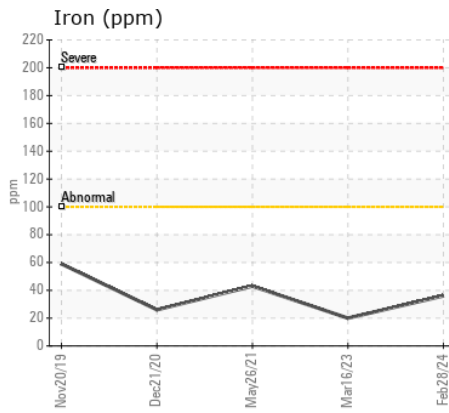
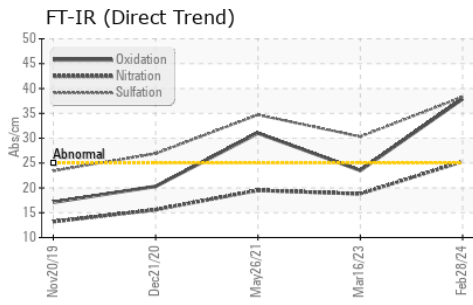
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	19	14	30
Potassium	ppm	ASTM D5185m	>20	10	4	6
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	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	25.3	18.8	19.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	38.3	30.3	34.7
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

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		34	16	14
Boron	ppm	ASTM D5185m		<1	0	8
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		5	2	8
Manganese	ppm	ASTM D5185m		3	<1	2
Magnesium	ppm	ASTM D5185m		47	21	63
Calcium	ppm	ASTM D5185m		4519	4301	3741
Phosphorus	ppm	ASTM D5185m		1056	898	819
Zinc	ppm	ASTM D5185m		1181	1062	990
Sulfur	ppm	ASTM D5185m		5155	3952	3171
Oxidation	Abs/.1mm	*ASTM D7414	>25	37.9	23.5	31
Base Number (BN)	mg KOH/g	ASTM D2896		7.57	11.68	8.53
Visc @ 100°C	cSt	ASTM D445		14.2	11.8	12.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06150619
Lab Number : 06150619
Unique Number : 10980697
Test Package : MOB 2

WELD COUNTY SCHOOL DISTRICT
 110 N 8TH ST
 WINDSOR, CO
 US 80550

Received : 16 Apr 2024
Tested : 17 Apr 2024
Diagnosed : 18 Apr 2024 - Sean Felton

Contact: JAMES WEST
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 T: (720)425-9923
 F: x:

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)