



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
BOBCAT 232512601

Component
Diesel Engine

Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (8 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR02632484	TR02570313	---
Sample Date		Client Info		19 Apr 2024	02 Jun 2023	---
Machine Age	hrs	Client Info		627	600	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	7	9	---
Chromium	ppm	ASTM D5185(m)	>20	<1	2	---
Nickel	ppm	ASTM D5185(m)	>4	0	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>20	3	2	---
Lead	ppm	ASTM D5185(m)	>40	0	0	---
Copper	ppm	ASTM D5185(m)	>330	<1	<1	---
Tin	ppm	ASTM D5185(m)	>15	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

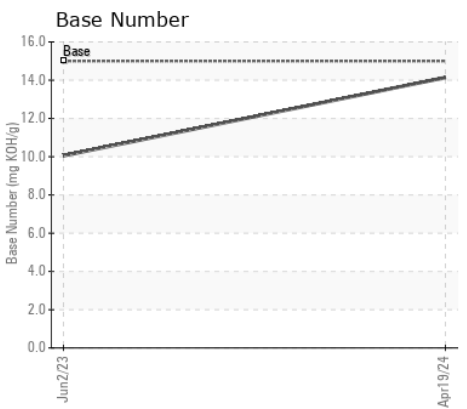
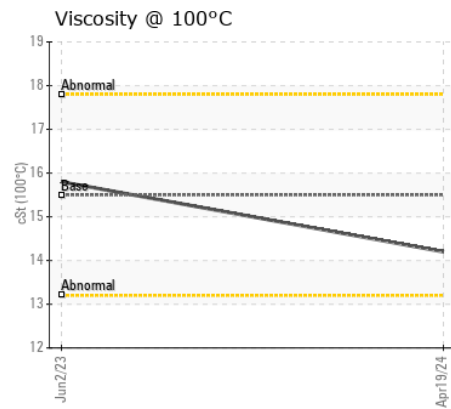
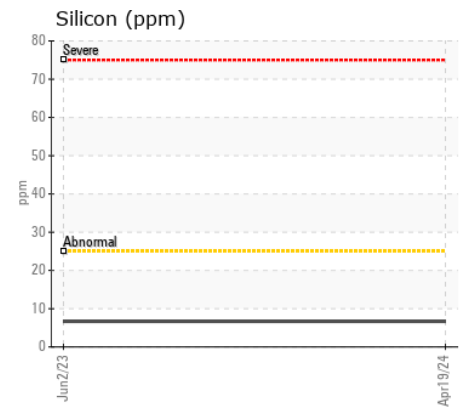
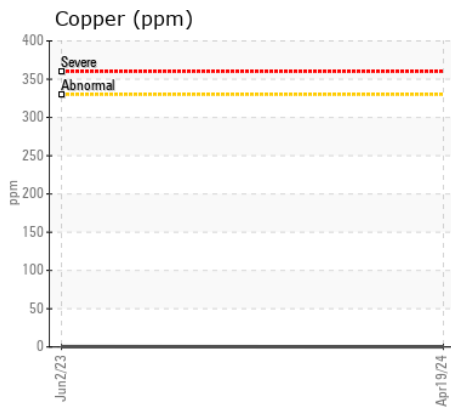
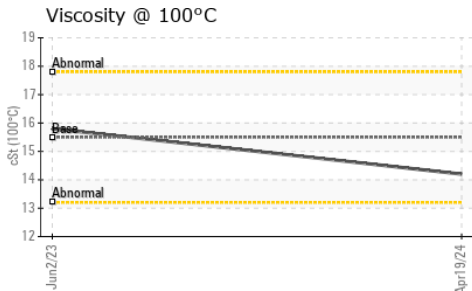
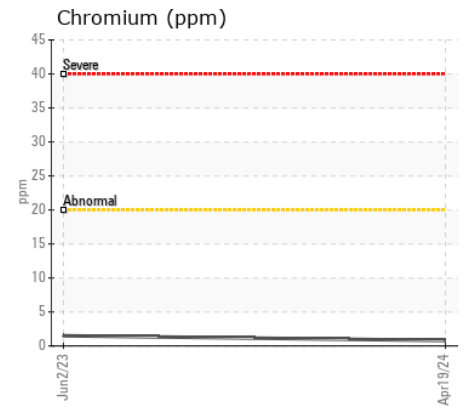
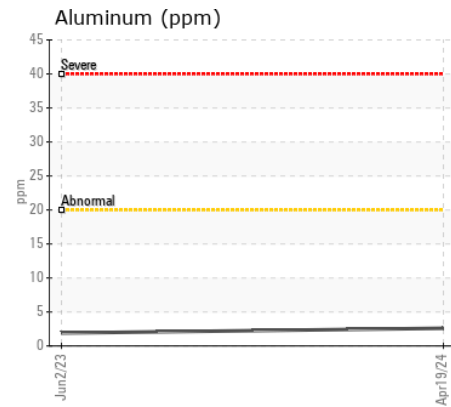
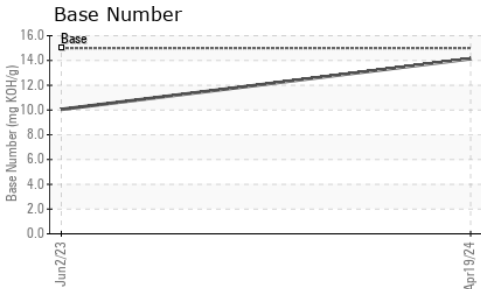
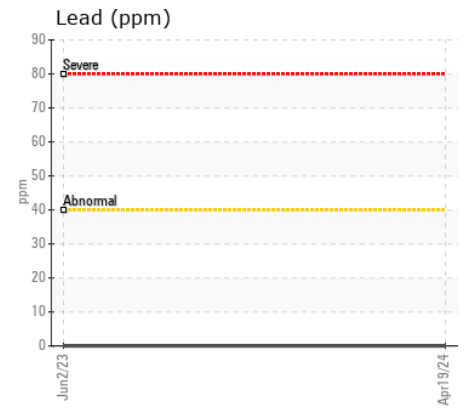
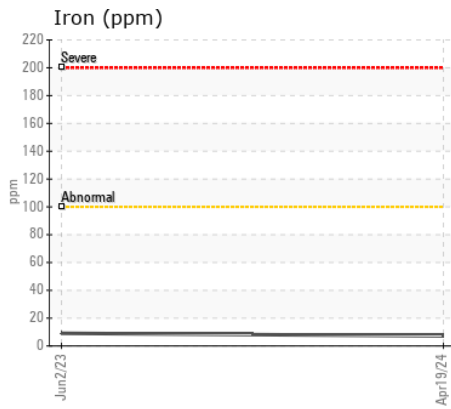
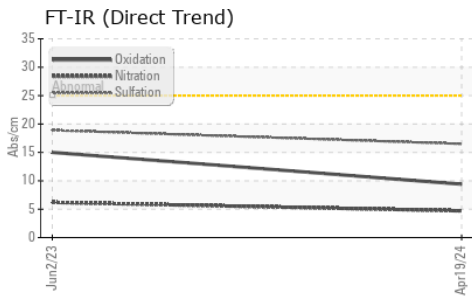
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	7	7	---
Potassium	ppm	ASTM D5185(m)	>20	1	5	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0	0.2	---
Nitration	Abs/cm	ASTM D7624*	>20	4.7	6.2	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	16.5	18.9	---
Emulsified Water	scalar	Visual*	>0.2	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 D5185(m)		2	6	---
Boron	ppm	ASTM D5185(m)		5	29	---
Barium	ppm	ASTM D5185(m)		0	0	---
Molybdenum	ppm	ASTM D5185(m)		0	<1	---
Manganese	ppm	ASTM D5185(m)		0	<1	---
Magnesium	ppm	ASTM D5185(m)		17	11	---
Calcium	ppm	ASTM D5185(m)	4500	4492	2634	---
Phosphorus	ppm	ASTM D5185(m)		879	966	---
Zinc	ppm	ASTM D5185(m)	1400	993	1091	---
Sulfur	ppm	ASTM D5185(m)		3268	3078	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	9.4	15.0	---
Base Number (BN)	mg KOH/g	ASTM D2896*	15	14.14	10.05	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	14.2	15.8	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : TR02632484 **Received** : 01 May 2024
Lab Number : 02632484 **Tested** : 02 May 2024
Unique Number : 5773637 **Diagnosed** : 02 May 2024 - Wes Davis
Test Package : MOB 2

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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)