



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**ICE UNIT V-417/E1**

Component  
**Propane Engine**

Fluid  
**VALVOLINE BLUE HEAVY DUTY 15W40 (10 QTS)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06146075	---	---
Sample Date		Client Info		05 Mar 2024	---	---
Machine Age	hrs	Client Info		348	---	---
Oil Age	hrs	Client Info		348	---	---
Filter Age	hrs	Client Info		348	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				ABNORMAL	---	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	130	---	---
Chromium	ppm	ASTM D5185m	>25	5	---	---
Nickel	ppm	ASTM D5185m	>5	3	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>5	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	8	---	---
Lead	ppm	ASTM D5185m	>25	9	---	---
Copper	ppm	ASTM D5185m	>35	9	---	---
Tin	ppm	ASTM D5185m	>8	2	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

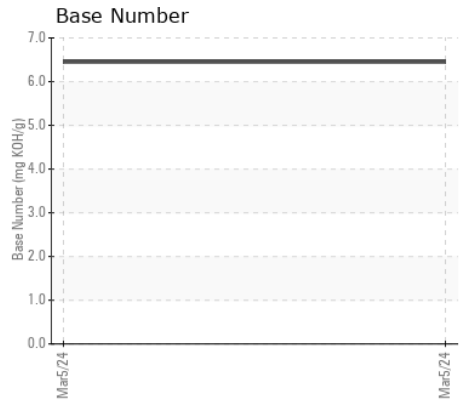
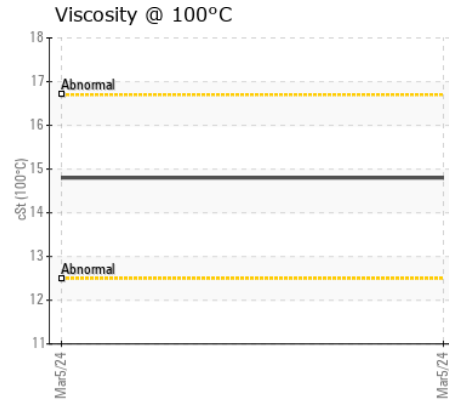
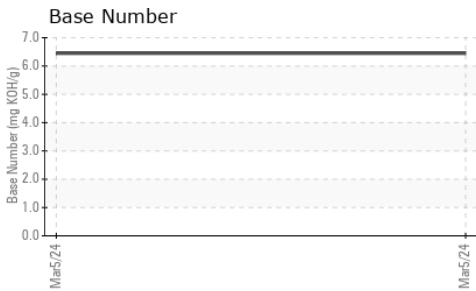
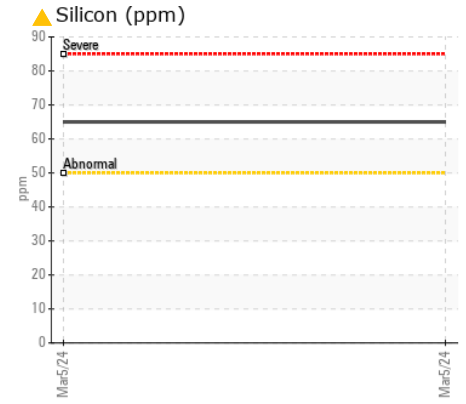
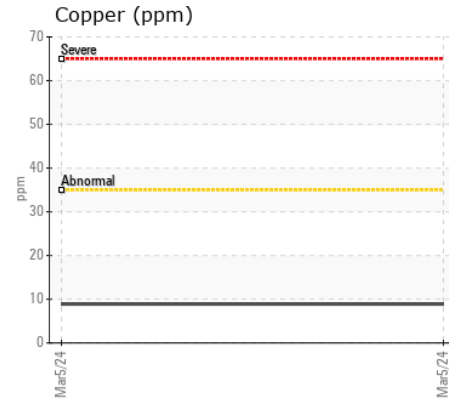
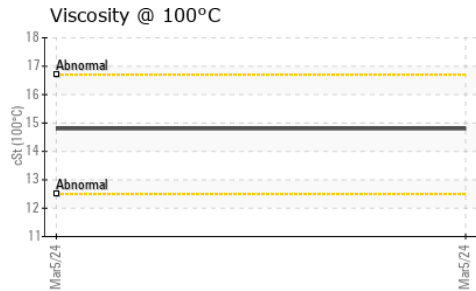
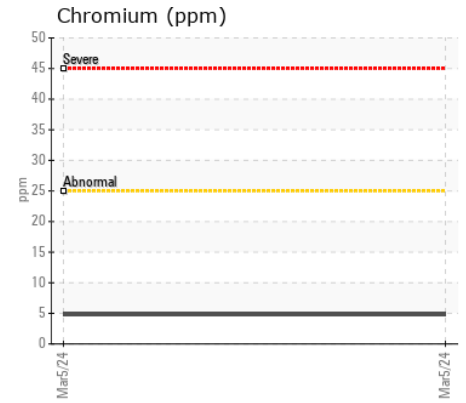
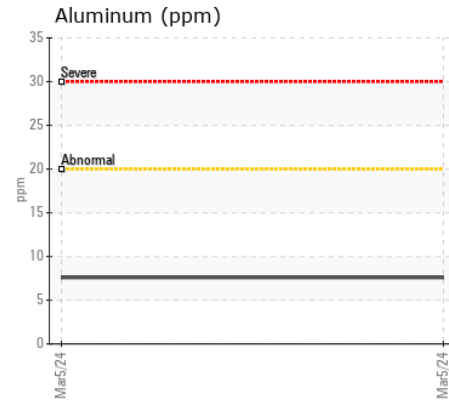
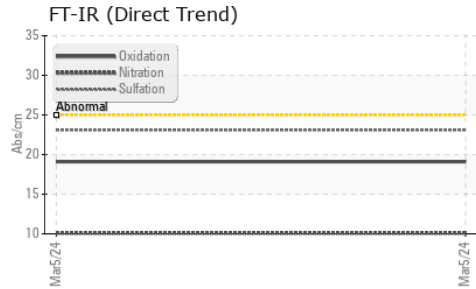
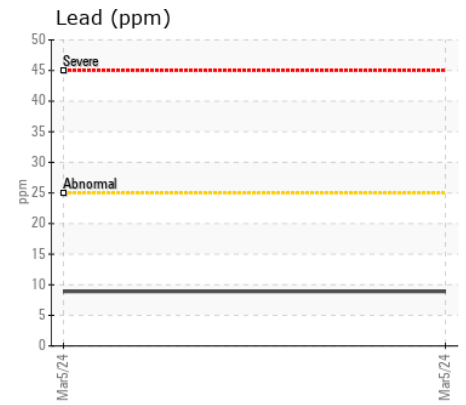
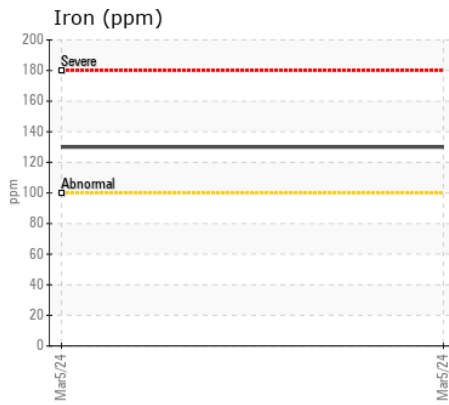
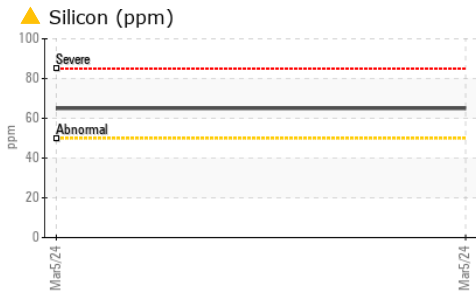
Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>50	▲ 65	---	---
Potassium	ppm	ASTM D5185m	>20	8	---	---
Water		WC Method	>0.1	NEG	---	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	10.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		12	---	---
Boron	ppm	ASTM D5185m		15	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		38	---	---
Manganese	ppm	ASTM D5185m		3	---	---
Magnesium	ppm	ASTM D5185m		542	---	---
Calcium	ppm	ASTM D5185m		1651	---	---
Phosphorus	ppm	ASTM D5185m		1274	---	---
Zinc	ppm	ASTM D5185m		1487	---	---
Sulfur	ppm	ASTM D5185m		2906	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.1	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.45	---	---
Visc @ 100°C	cSt	ASTM D445		14.8	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06146075  
**Lab Number** : 06146075  
**Unique Number** : 10976153  
**Test Package** : MOB 2

**Received** : 11 Apr 2024  
**Tested** : 12 Apr 2024  
**Diagnosed** : 15 Apr 2024 - Don Baldrige

**SHELTON SERVICES**  
 614 N 1ST ST  
 LA PORTE, TX  
 US 77571  
 Contact: NORMAN MASSON

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:  
F: