



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id  
**DODGE M-11 20 DRAG TOP M-11 TOP FILL DRAG 20 (S/N 235457)**

Component  
**Gearbox**

Fluid  
**CHEVRON CETUS HIPER SYN ISO 150 (4 GAL)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

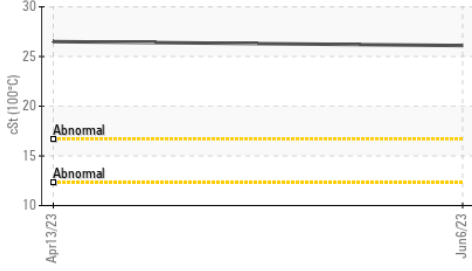
There is no indication of any contamination in the oil.

## FLUID CONDITION

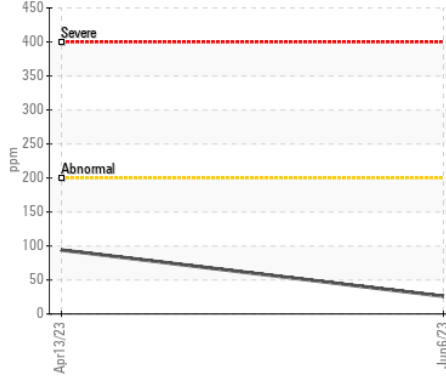
The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05874585	TR05822848	---
Sample Date		Client Info		06 Jun 2023	13 Apr 2023	---
Machine Age	yrs	Client Info		0	0	---
Oil Age	yrs	Client Info		0	7	---
Filter Age	yrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ATTENTION	ABNORMAL	---
Iron	ppm	ASTM D5185m	>200	26	94	---
Chromium	ppm	ASTM D5185m	>10	0	1	---
Nickel	ppm	ASTM D5185m	>10	<1	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>25	0	0	---
Lead	ppm	ASTM D5185m	>50	0	0	---
Copper	ppm	ASTM D5185m	>200	0	<1	---
Tin	ppm	ASTM D5185m	>10	0	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>50	3	21	---
Potassium	ppm	ASTM D5185m	>20	0	2	---
Water		WC Method	>0.2	NEG	NEG	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	▲ MODER	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185m		<1	1	---
Boron	ppm	ASTM D5185m		0	8	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		0	1	---
Manganese	ppm	ASTM D5185m		<1	3	---
Magnesium	ppm	ASTM D5185m		0	6	---
Calcium	ppm	ASTM D5185m		1	18	---
Phosphorus	ppm	ASTM D5185m		829	363	---
Zinc	ppm	ASTM D5185m		5	96	---
Sulfur	ppm	ASTM D5185m		924	4861	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.26	0.65	---
Visc @ 100°C	cSt	ASTM D445		▲ 26.1	26.5	---

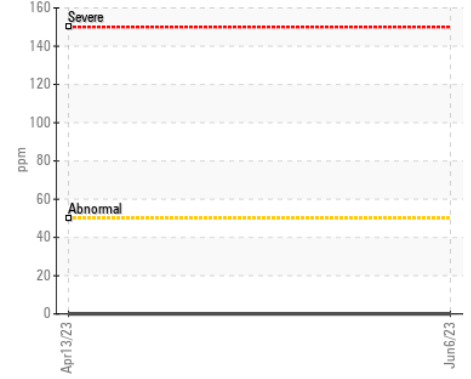
▲ Viscosity @ 100°C



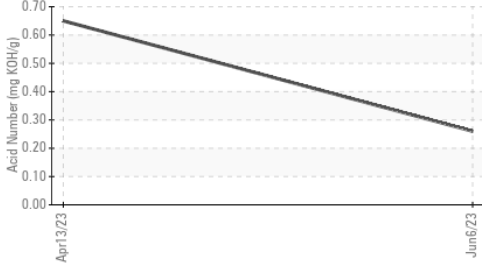
Iron (ppm)



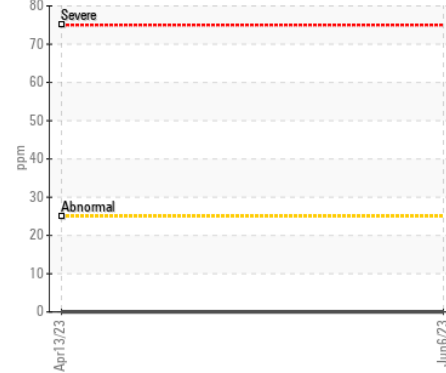
Lead (ppm)



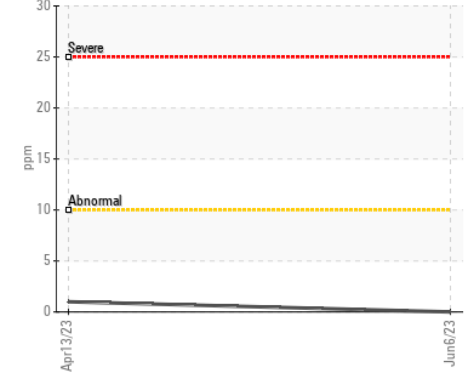
Acid Number



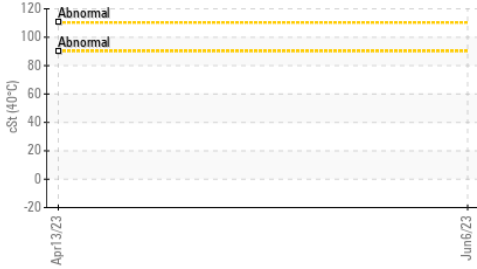
Aluminum (ppm)



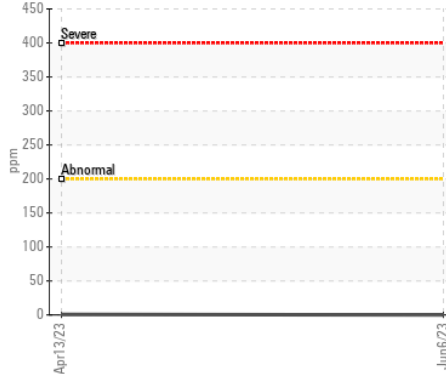
Chromium (ppm)



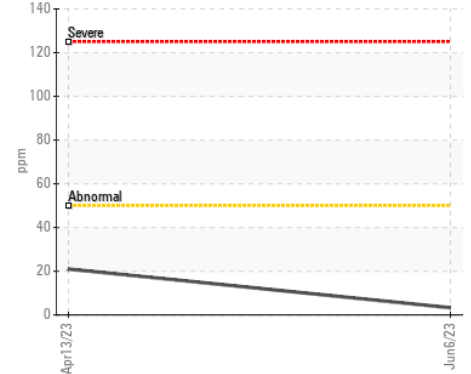
Viscosity @ 40°C



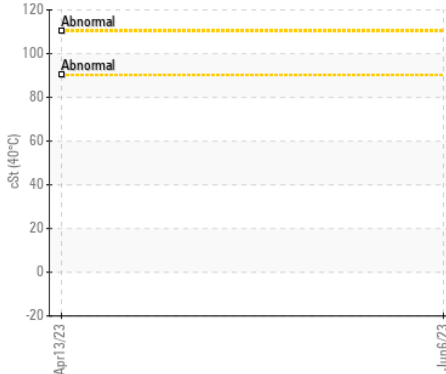
Copper (ppm)



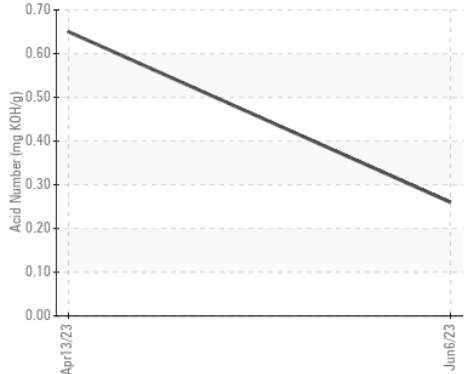
Silicon (ppm)



Viscosity @ 40°C



Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR05874585 **Received** : 15 Jun 2023  
**Lab Number** : 05874585 **Tested** : 17 Jun 2023  
**Unique Number** : 10519688 **Diagnosed** : 17 Jun 2023 - Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: KV100 )

**HIGHLINE GRAIN GROWERS**  
 9025 S CRAIG RD  
 CHENEY, WA  
 US 99004  
 Contact: RONALD 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:  
F: