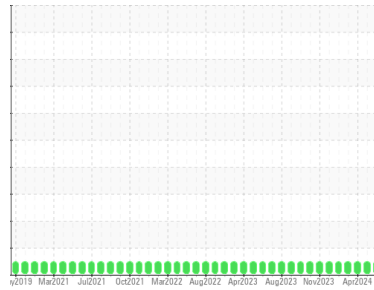




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**Mt. Vernon**

Machine Id

**[Mt. Vernon] Oil - Port Reduction Gear**

Component

**Port Reduction Gear**

Fluid

**DIESEL ENGINE OIL SAE 15W40 (53 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Ronnie Wilbanks )

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0859773</b>	WC0769039	WC0769038
Sample Date	Client Info		<b>14 Jun 2024</b>	18 May 2024	17 Apr 2024
Machine Age	hrs	Client Info	<b>13389</b>	12765	12030
Oil Age	hrs	Client Info	<b>13389</b>	12735	12030
Oil Changed	Client Info		<b>Not Changed</b>	Not Changd	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	<b>136</b>	132	124
Chromium	ppm	ASTM D5185m >10	<b>1</b>	2	<1
Nickel	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	<b>0</b>	<1	3
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	1	<1
Lead	ppm	ASTM D5185m >100	<b>0</b>	1	0
Copper	ppm	ASTM D5185m >50	<b>72</b>	68	67
Tin	ppm	ASTM D5185m >10	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	<b>9</b>	5	6
Barium	ppm	ASTM D5185m 10	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m 100	<b>73</b>	68	62
Manganese	ppm	ASTM D5185m	<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m 450	<b>164</b>	168	142
Calcium	ppm	ASTM D5185m 3000	<b>2580</b>	2474	2353
Phosphorus	ppm	ASTM D5185m 1150	<b>750</b>	738	658
Zinc	ppm	ASTM D5185m 1350	<b>797</b>	771	722
Sulfur	ppm	ASTM D5185m 4250	<b>6827</b>	6460	6005

## CONTAMINANTS

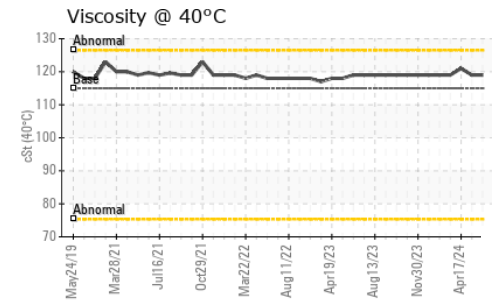
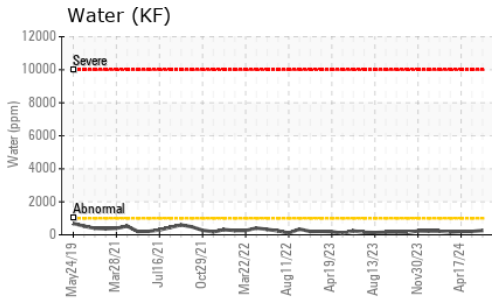
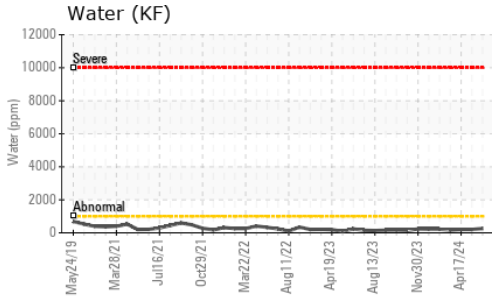
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>9</b>	7	6
Sodium	ppm	ASTM D5185m >158	<b>4</b>	3	1
Potassium	ppm	ASTM D5185m >20	<b>1</b>	1	0
Water	%	ASTM D6304 >0.1	<b>0.026</b>	0.020	0.020
ppm Water	ppm	ASTM D6304 >1000	<b>264</b>	203	203

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.70</b>	0.73	0.74



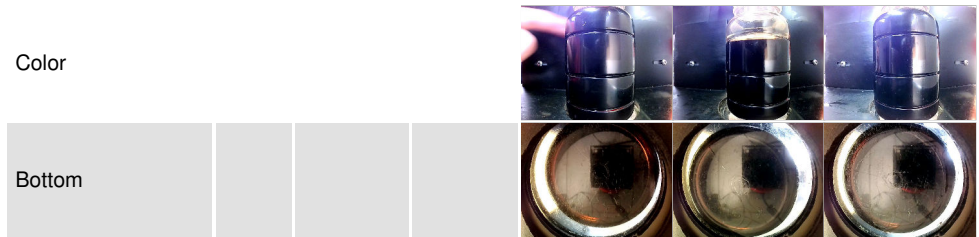
# OIL ANALYSIS REPORT



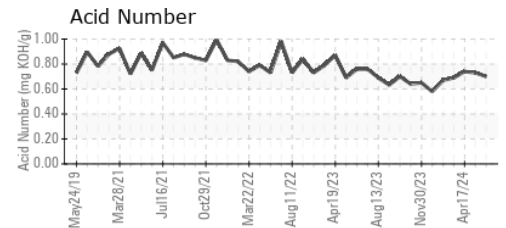
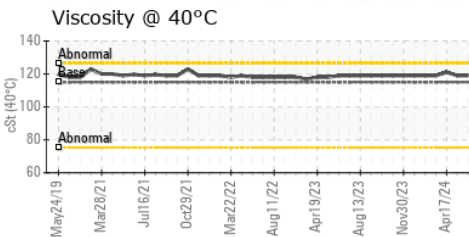
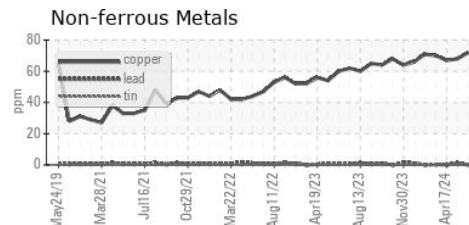
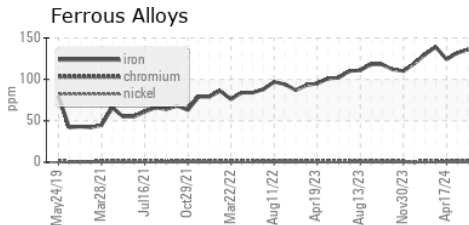
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	115	119	121

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0859773

Lab Number : 06219785

Unique Number : 11097982

Test Package : IND 2 ( Additional Tests: KF )

Received : 25 Jun 2024

Tested : 26 Jun 2024

Diagnosed : 27 Jun 2024 - Don Baldrige

MARATHON PETROLEUM CO.

101 12TH ST

CATLETTSBURG, KY

US 41169

Contact: CORY GUMBERT

cagumbert@marathonpetroleum.com

T: (606)585-3950

F: x:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - 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)