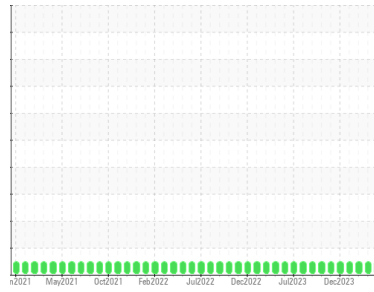




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**Speedway**

Machine Id

**[Speedway] Oil - Starboard Reduction Gear**

Component

**Starboard Reduction Gear**

Fluid

**SAE 30W (85 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Jd Ridout )

### 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>WC0860102</b>	WC0860044	WC0860048
Sample Date	Client Info		<b>10 Apr 2024</b>	20 Mar 2024	21 Feb 2024
Machine Age	hrs	Client Info	<b>40044</b>	39756	39378
Oil Age	hrs	Client Info	<b>17493</b>	17204	16826
Oil Changed	Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	<b>14</b>	13	32
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>&lt;1</b>	1	0
Lead	ppm	ASTM D5185m >100	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >50	<b>4</b>	6	13
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>23</b>	23	38
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>33</b>	32	23
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>522</b>	502	314
Calcium	ppm	ASTM D5185m	<b>1378</b>	1369	1954
Phosphorus	ppm	ASTM D5185m	<b>824</b>	832	801
Zinc	ppm	ASTM D5185m	<b>897</b>	920	872
Sulfur	ppm	ASTM D5185m	<b>5373</b>	5630	6286

## CONTAMINANTS

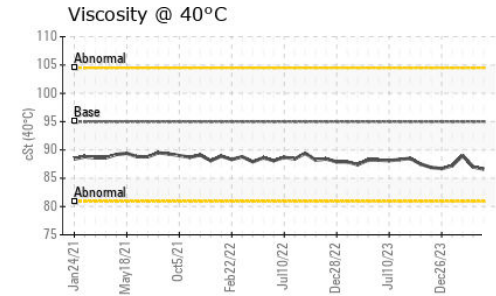
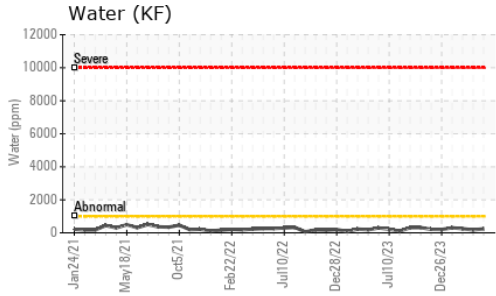
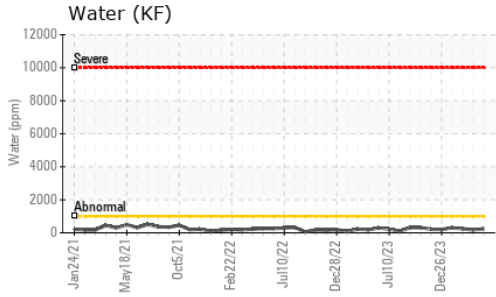
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>3</b>	2	5
Sodium	ppm	ASTM D5185m	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Water	%	ASTM D6304 >0.1	<b>0.024</b>	0.017	0.025
ppm Water	ppm	ASTM D6304 >1000	<b>244</b>	177	251

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>1.01</b>	0.97	0.95



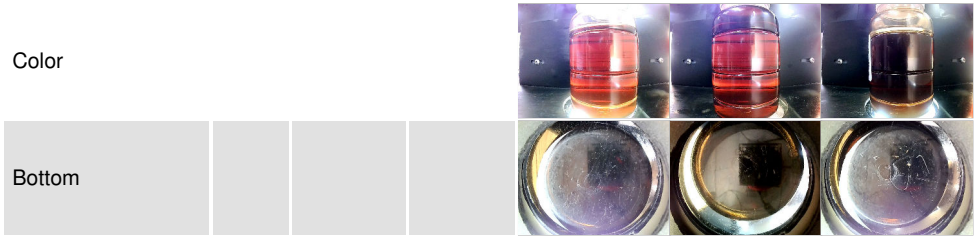
# OIL ANALYSIS REPORT



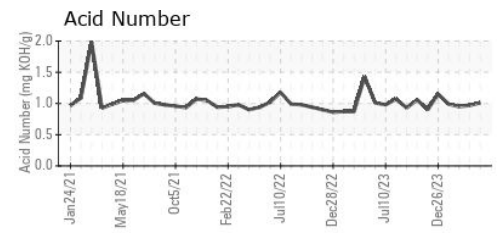
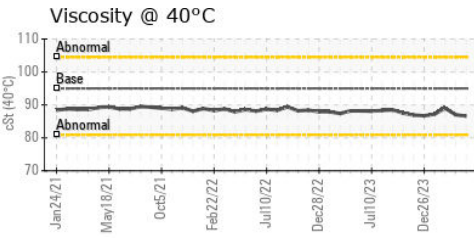
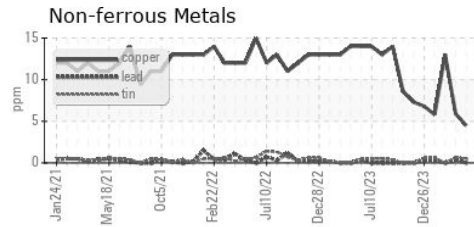
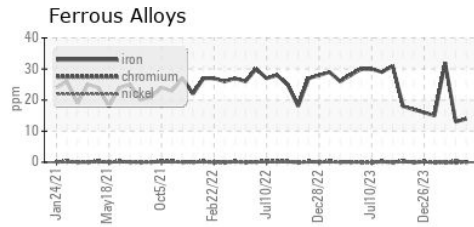
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	95.0	<b>86.6</b>	87.0	89.0

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0860102      **Received** : 23 Apr 2024  
**Lab Number** : 06157763      **Tested** : 24 Apr 2024  
**Unique Number** : 10993186      **Diagnosed** : 25 Apr 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF )

**MARATHON PETROLEUM CO.**  
 101 12TH ST  
 CATLETTSBURG, KY  
 US 41169  
 Contact: CORY GUMBERT  
 cagumbert@marathonpetroleum.com

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)