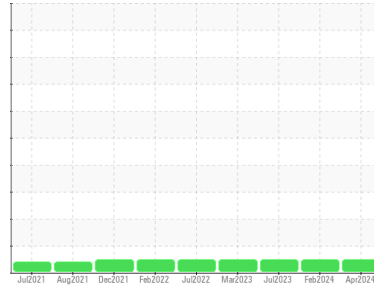




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area

**Speedway**

Machine Id

**[Speedway] Hydraulic - Flanking**

Component

**Hydraulic System**

Fluid

**R&O OIL ISO 32 (75 GAL)**

### DIAGNOSIS

#### Recommendation

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

#### Wear

All component wear rates are normal.

#### Contamination

The amount and size of particulates present in the system are acceptable. 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>WC0860106</b>	WC0860049	WC0735516
Sample Date	Client Info		<b>05 Apr 2024</b>	21 Feb 2024	01 Jul 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Not Changd	Filtered
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>19</b>	14	18
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	0	<1
Lead	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m >20	<b>13</b>	11	6
Tin	ppm	ASTM D5185m >20	<b>1</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 5	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 5	<b>&lt;1</b>	1	<1
Calcium	ppm	ASTM D5185m 5	<b>13</b>	18	61
Phosphorus	ppm	ASTM D5185m 100	<b>57</b>	59	37
Zinc	ppm	ASTM D5185m 25	<b>59</b>	52	23
Sulfur	ppm	ASTM D5185m 1500	<b>348</b>	366	432

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>2</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>2</b>	0	3
Potassium	ppm	ASTM D5185m >20	<b>1</b>	0	0
Water	%	ASTM D6304 >0.05	<b>0.002</b>	0.003	0.003
ppm Water	ppm	ASTM D6304 >500	<b>24</b>	27	29.4

### FLUID CLEANLINESS

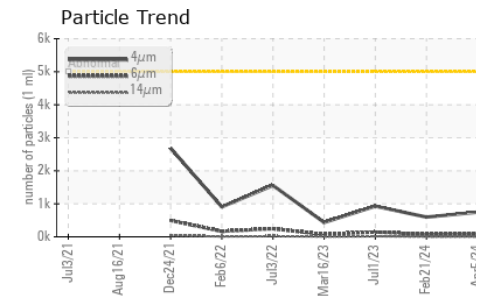
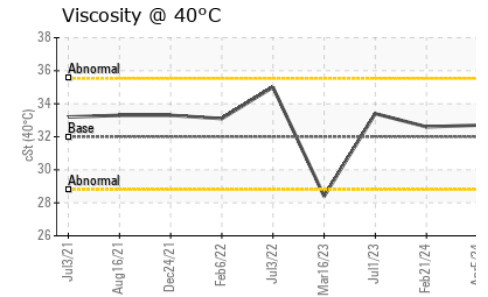
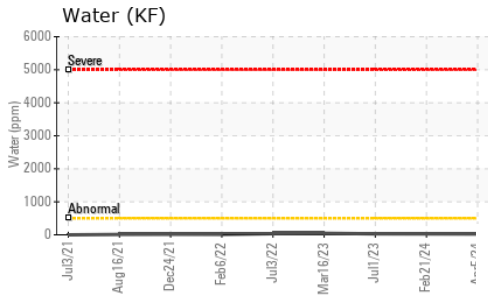
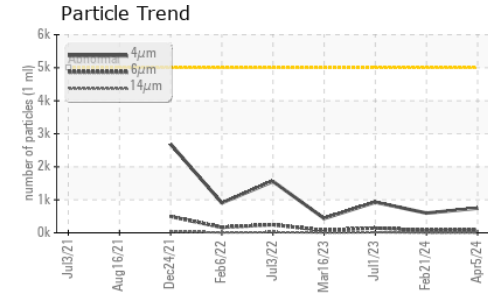
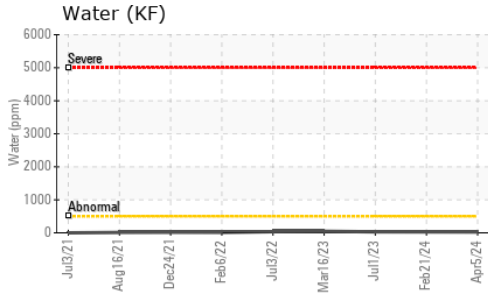
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>746</b>	597	928
Particles >6µm	ASTM D7647	>1300	<b>84</b>	74	144
Particles >14µm	ASTM D7647	>160	<b>6</b>	4	17
Particles >21µm	ASTM D7647	>40	<b>1</b>	1	6
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>17/14/10</b>	16/13/9	17/14/11

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.08	<b>0.09</b>	0.10	0.086



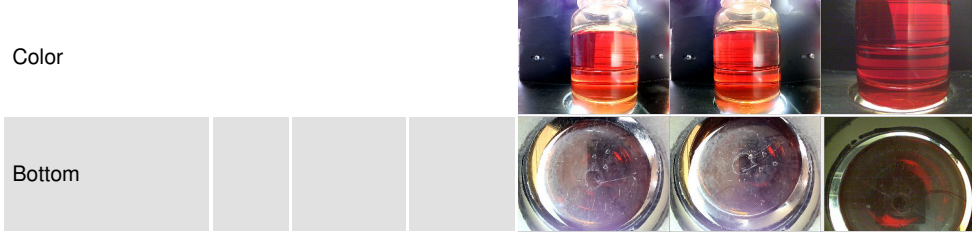
# OIL ANALYSIS REPORT



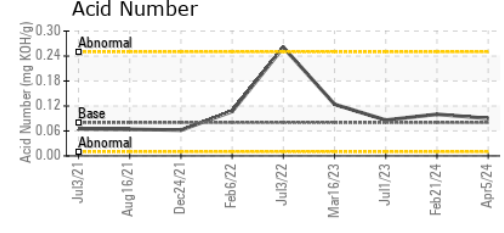
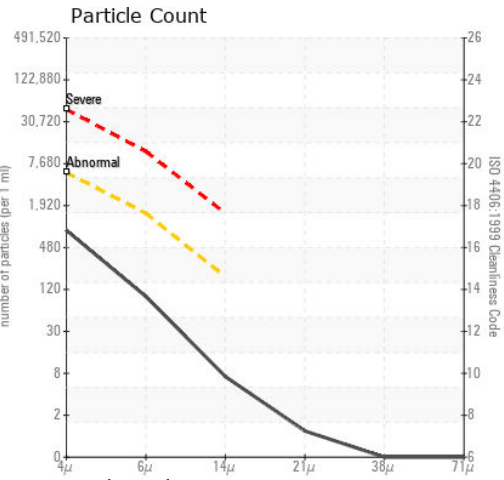
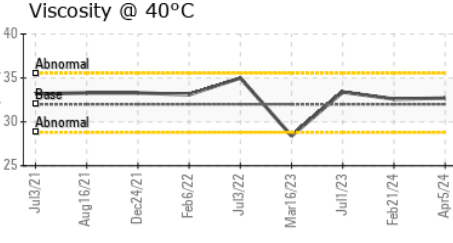
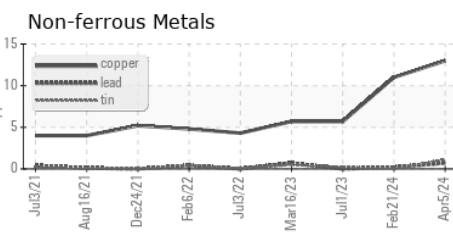
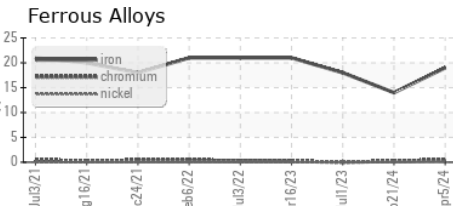
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	32.7	32.6

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0860106 **Received** : 23 Apr 2024  
**Lab Number** : 06157685 **Tested** : 24 Apr 2024  
**Unique Number** : 10993108 **Diagnosed** : 25 Apr 2024 - Jonathan Hester  
**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)