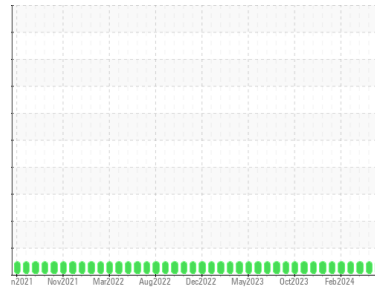




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

Findlay

Machine Id

[Findlay] Oil - Port Reduction Gear

Component

Port Reduction Gear

Fluid

MARATHON SAE 40 (80 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. 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		WC0874696	WC0874647	WC0874731
Sample Date	Client Info		18 Jun 2024	14 May 2024	23 Apr 2024
Machine Age	hrs	Client Info	28122	27786	27363
Oil Age	hrs	Client Info	15896	15560	25137
Oil Changed	Client Info		Filtered	Filtered	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	23	25	23
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >10	<1	<1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >25	1	1	<1
Lead	ppm	ASTM D5185m >100	0	<1	<1
Copper	ppm	ASTM D5185m >50	3	3	4
Tin	ppm	ASTM D5185m >10	0	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	19	20	18
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	46	48	47
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	719	730	703
Calcium	ppm	ASTM D5185m	838	822	840
Phosphorus	ppm	ASTM D5185m	830	806	819
Zinc	ppm	ASTM D5185m	938	943	922
Sulfur	ppm	ASTM D5185m	2847	3051	2832

CONTAMINANTS

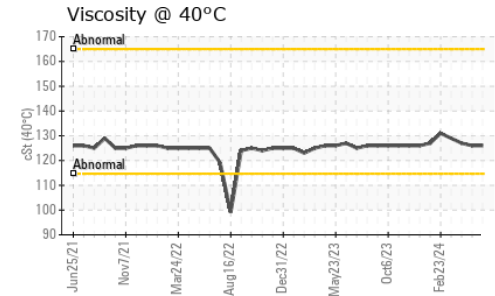
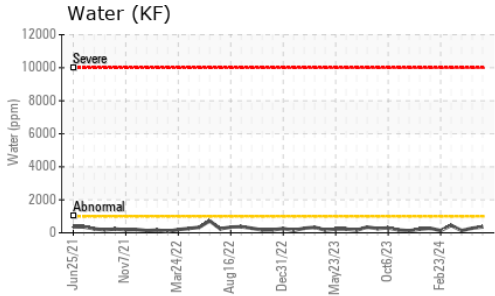
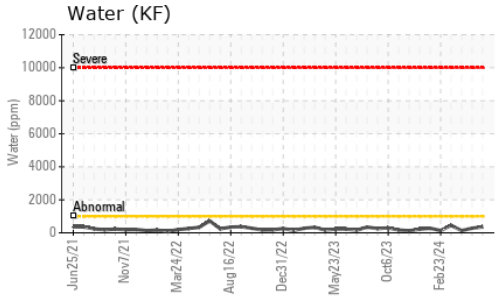
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	3	5	3
Sodium	ppm	ASTM D5185m	5	5	4
Potassium	ppm	ASTM D5185m >20	2	<1	<1
Water	%	ASTM D6304 >0.1	0.035	0.027	0.013
ppm Water	ppm	ASTM D6304 >1000	359	280	137

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.76	0.53	0.62



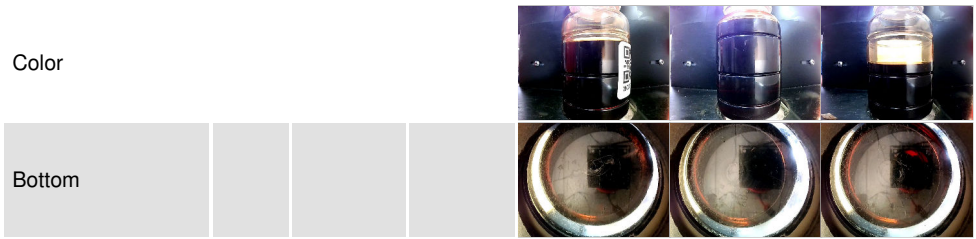
OIL ANALYSIS REPORT



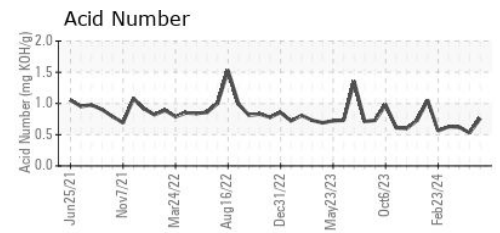
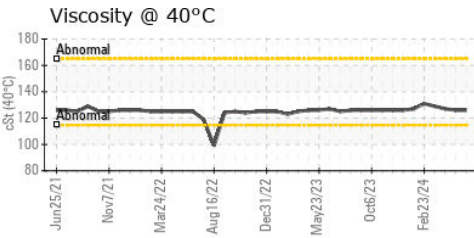
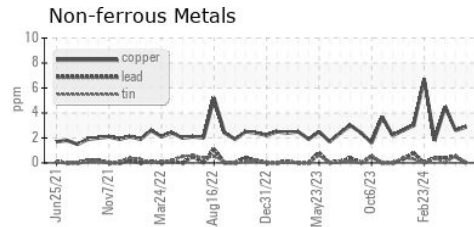
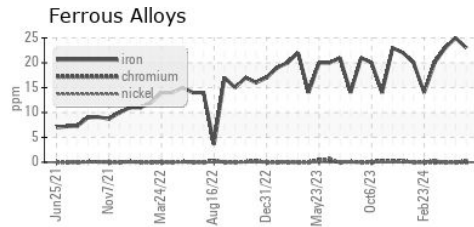
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	126	126	127

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0874696 **Received** : 25 Jun 2024
Lab Number : 06219788 **Tested** : 26 Jun 2024
Unique Number : 11097985 **Diagnosed** : 26 Jun 2024 - Wes Davis
Test Package : IND 2 (Additional Tests: KF)

MARATHON PETROLEUM CO.
 101 12TH ST
 CATLETTSBURG, KY
 US 41169
 Contact: SHAWN MCCLASKEY
 stmcclasskey@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)