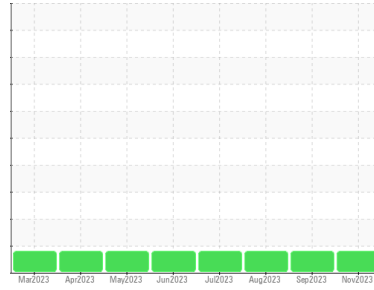




PROBLEM SUMMARY

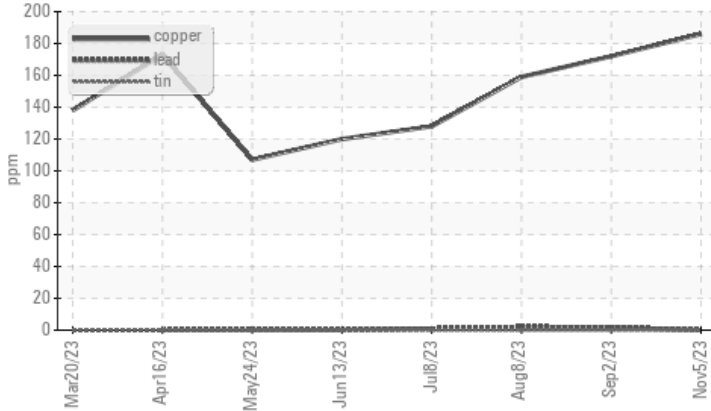
Sample Rating Trend



Area
Huntington
 Machine Id
[Huntington] Oil - Port Reduction Gear
 Component
Port Reduction Gear
 Fluid
SAE 40W (24 GAL)

COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

No corrective action is recommended at this time.
 Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Copper	ppm	ASTM D5185m	>50	▲ 186	▲ 172	▲ 159

Customer Id: MARCAT
 Sample No.: WC0804876
 Lab Number: 06008432
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

02 Sep 2023 Diag: Doug Bogart

WEAR



No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



08 Aug 2023 Diag: Doug Bogart

WEAR



No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



08 Jul 2023 Diag: Don Baldrige

WEAR



No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

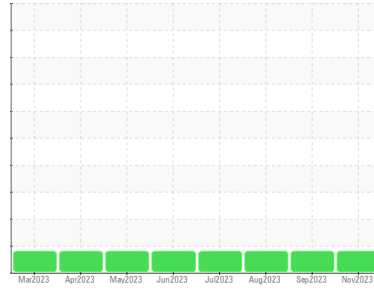
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
Huntington
 Machine Id
[Huntington] Oil - Port Reduction Gear
 Component
Port Reduction Gear
 Fluid
SAE 40W (24 GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The copper level is abnormal. All other 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		WC0804876	WC0769076	WC0769354
Sample Date	Client Info		05 Nov 2023	02 Sep 2023	08 Aug 2023
Machine Age	hrs	Client Info	18450	17471	16408
Oil Age	hrs	Client Info	0	0	16408
Oil Changed	Client Info		Not Chngd	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	2	4	4
Chromium	ppm	ASTM D5185m >10	0	0	<1
Nickel	ppm	ASTM D5185m >10	0	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	<1	<1	<1
Lead	ppm	ASTM D5185m >100	0	2	2
Copper	ppm	ASTM D5185m >50	▲ 186	▲ 172	▲ 159
Tin	ppm	ASTM D5185m >10	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6	4	4
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	89	94	95
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	181	201	204
Calcium	ppm	ASTM D5185m	2036	2192	2226
Phosphorus	ppm	ASTM D5185m	807	861	862
Zinc	ppm	ASTM D5185m	894	981	966
Sulfur	ppm	ASTM D5185m	2571	3350	3250

CONTAMINANTS

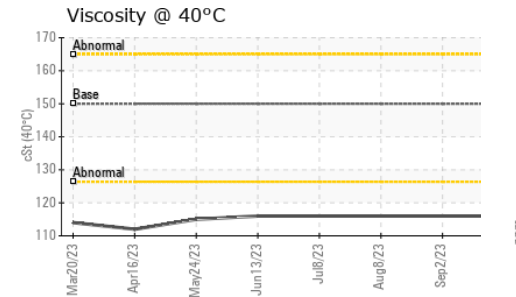
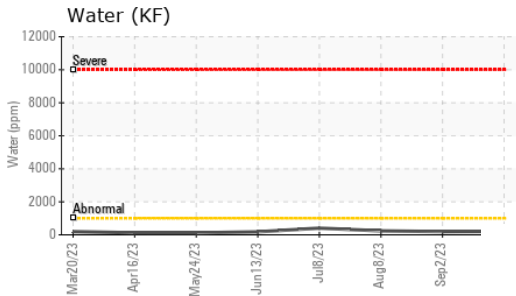
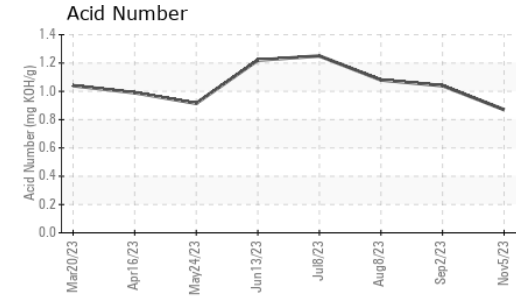
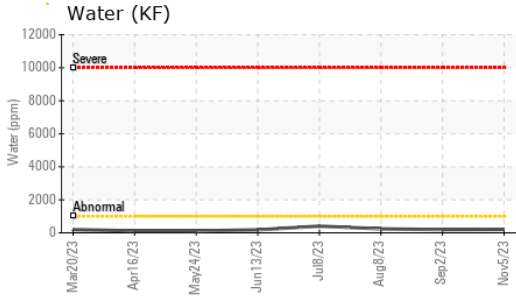
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	2	2	2
Sodium	ppm	ASTM D5185m	5	5	6
Potassium	ppm	ASTM D5185m >20	0	1	<1
Water	%	ASTM D6304 >0.1	0.020	0.019	0.023
ppm Water	ppm	ASTM D6304 >1000	205.6	194.6	238.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.87	1.04	1.08



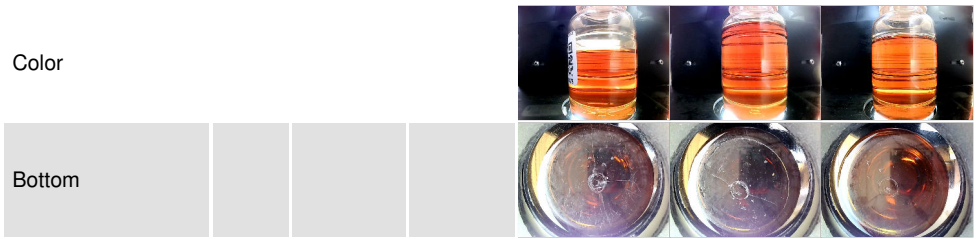
OIL ANALYSIS REPORT



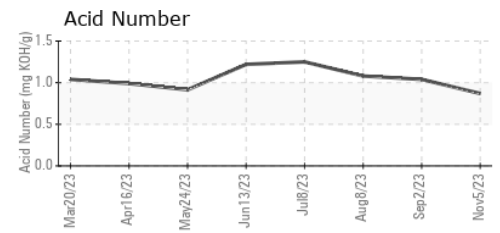
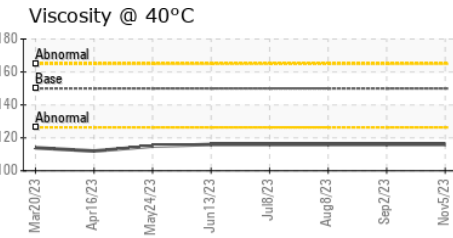
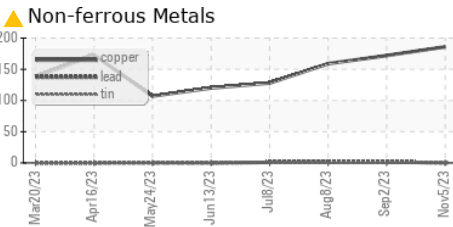
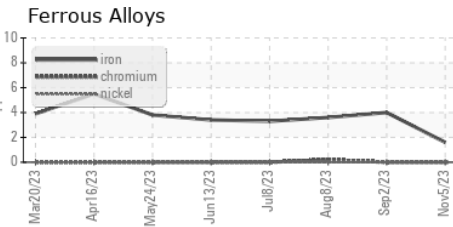
PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	150	116	116

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0804876 **Received** : 15 Nov 2023
Lab Number : 06008432 **Diagnosed** : 17 Nov 2023
Unique Number : 10742194 **Diagnostician** : 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
 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)