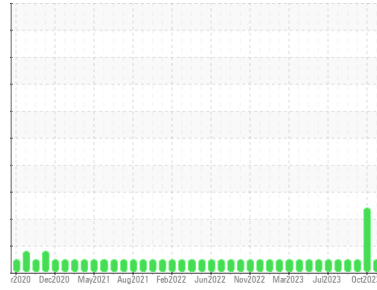




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Tampa
 Machine Id
[Tampa] Oil - Port Reduction Gear
 Component
Starboard Reduction Gear
 Fluid
MOBIL DELVAC 1640 (35 GAL)

DIAGNOSIS

- Recommendation**
Resample at the next service interval to monitor.
- 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		WC0805336	WC0805342	WC0769427
Sample Date	Client Info		21 Nov 2023	25 Oct 2023	27 Sep 2023
Machine Age	hrs	Client Info	20061	19532	18864
Oil Age	hrs	Client Info	262	2202	1568
Oil Changed	Client Info		Changed	Not Changd	Not Changd
Sample Status			NORMAL	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	6	5	8
Chromium	ppm	ASTM D5185m >10	<1	0	<1
Nickel	ppm	ASTM D5185m >10	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	2	1	2
Lead	ppm	ASTM D5185m >100	0	3	0
Copper	ppm	ASTM D5185m >50	2	▲ 224	5
Tin	ppm	ASTM D5185m >10	0	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6	1	10
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	34	42	38
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	171	▲ 647	205
Calcium	ppm	ASTM D5185m	2926	▲ 741	2829
Phosphorus	ppm	ASTM D5185m	576	742	704
Zinc	ppm	ASTM D5185m	694	799	799
Sulfur	ppm	ASTM D5185m	6491	▲ 2060	6428

CONTAMINANTS

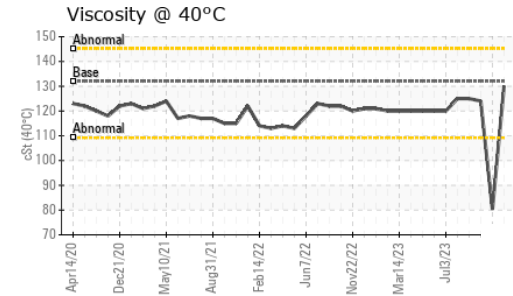
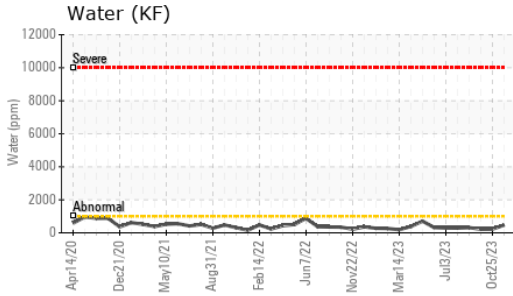
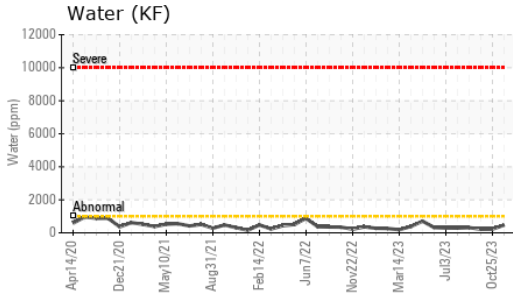
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	4	2	4
Sodium	ppm	ASTM D5185m	2	2	3
Potassium	ppm	ASTM D5185m >20	2	<1	<1
Water	%	ASTM D6304 >0.1	0.047	0.022	0.021
ppm Water	ppm	ASTM D6304 >1000	472	222.1	216.3

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.49	0.41	1.42



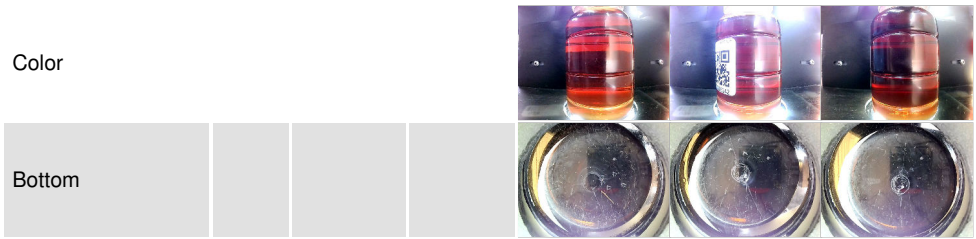
OIL ANALYSIS REPORT



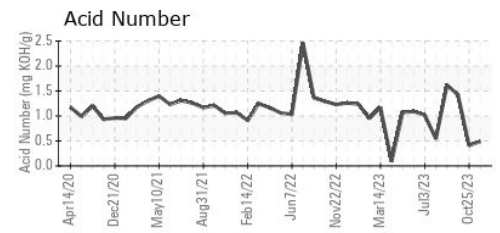
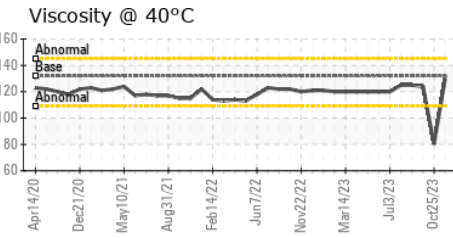
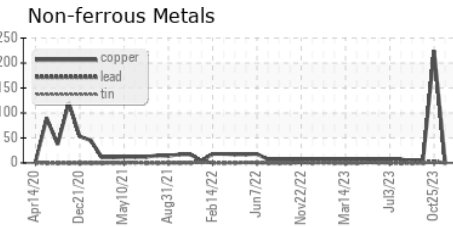
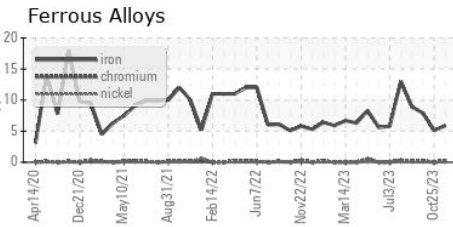
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 132	130	▲ 80.3	124

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0805336 **Received** : 08 Dec 2023
Lab Number : 06029477 **Diagnosed** : 11 Dec 2023
Unique Number : 10779268 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF)

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 CATLETTSBURG, KY
 US 41169
 Contact: CORY GUMBERT
 cagumbert@marathonpetroleum.com
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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)