

# Area **Tampa** [Tampa] Oil - Port Reduction Gear

Port Reduction Gear

Fluid MOBIL DELVAC 1640 (28 GAL)

#### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

#### Wear

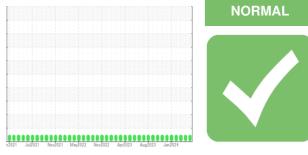
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

## Fluid Condition

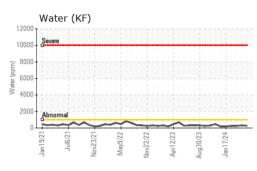
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

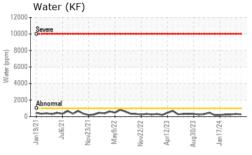


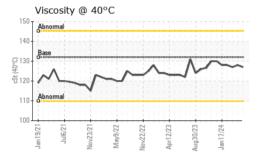
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0874678	WC0805298	WC0805291
Sample Date		Client Info		09 May 2024	11 Apr 2024	13 Mar 2024
Machine Age	hrs	Client Info		23819	23200	4157
Oil Age	hrs	Client Info		3620	3000	294
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	8	6	8
Chromium	ppm	ASTM D5185m	>10	<1	<1	0
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	1	2	2
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>50	10	8	10
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
				v	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base	-	-	
		method	limit/base	current	history1	history2
Boron	ppm	method ASTM D5185m	limit/base	current 20	history1 13	history2 14
Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 20 0	history1 13 0	history2 14 0
Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 20 0 35	history1 13 0 34	history2 14 0 36
Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 20 0 35 <1	history1 13 0 34 <1	history2 14 0 36 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 20 0 35 <1 173	history1 13 0 34 <1 184	history2 14 0 36 0 184
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current           20           0           35           <1           173           3022	history1 13 0 34 <1 184 2819	history2 14 0 36 0 184 2921
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current           20           0           35           <1           173           3022           644	history1 13 0 34 <1 184 2819 623	history2 14 0 36 0 184 2921 630
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base	current           20           0           35           <1           173           3022           644           694	history1 13 0 34 <1 184 2819 623 694	history2 14 0 36 0 184 2921 630 716
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		current           20           0           35           <1           173           3022           644           694           7363	history1 13 0 34 <1 184 2819 623 694 7100	history2 14 0 36 0 184 2921 630 716 6453
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current           20           0           35           <1           173           3022           644           694           7363           current	history1           13           0           34           <1           184           2819           623           694           7100           history1	history2         14         0         36         0         184         2921         630         716         6453         history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base	current           20           0           35           <1           173           3022           644           694           7363           current           0	history1           13           0           34           <1           184           2819           623           694           7100           history1           4	history2         14         0         36         0         184         2921         630         716         6453         history2         4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base >50	current           20           0           35           <1           173           3022           644           694           7363           current           0           4	history1           13           0           34           <1           184           2819           623           694           7100           history1           4           4	history2         14         0         36         0         184         2921         630         716         6453         history2         4         3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base >50 >20	current           20           0           35           <1           173           3022           644           694           7363           current           0           4           0	history1         13         0         34         <1         184         2819         623         694         7100         history1         4         2	history2         14         0         36         0         184         2921         630         716         6453         history2         4         3         4
Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D5185m	limit/base >50 >20 >0.1	current           20           0           35           <1           173           3022           644           694           7363           current           0           4           0           0.026	history1           13           0           34           <1           184           2819           623           694           7100           history1           4           2           0.032	history2         14         0         36         0         184         2921         630         716         6453         history2         4         3         4         0.023



# **OIL ANALYSIS REPORT**





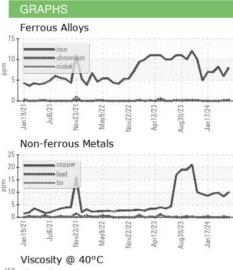


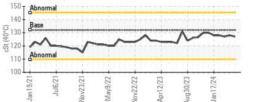
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	132	127	128	127
SAMPLE IMAGES		method	limit/base	current	history1	history2

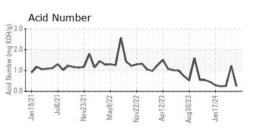
Color



Bottom







Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 MARATHON PETROLEUM CO. Sample No. : WC0874678 Received : 16 May 2024 101 12TH ST Lab Number : 06181428 Tested : 17 May 2024 CATLETTSBURG, KY Unique Number : 11032754 Diagnosed : 20 May 2024 - Angela Borella US 41169 Test Package : IND 2 (Additional Tests: KF) Contact: CORY GUMBERT Certificate 12367 cagumbert@marathonpetroleum.com To discuss this sample report, contact Customer Service at 1-800-237-1369. T: (606)585-3950 \* - 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) F: x:

Report Id: MARCAT [WUSCAR] 06181428 (Generated: 05/20/2024 10:23:34) Rev: 1

Submitted By: M/V TAMPA