



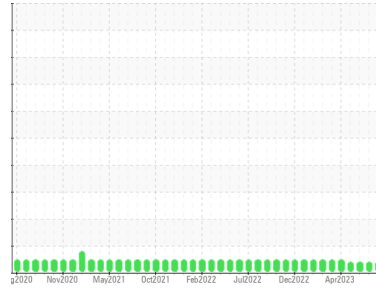
# PROBLEM SUMMARY

Sample Rating Trend

VISCOSITY

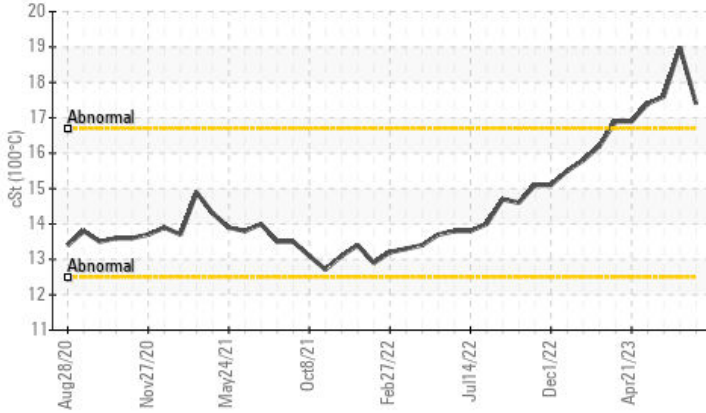


Area  
**Findlay**  
 Machine Id  
**[Findlay] Oil - Port Genset**  
 Component  
**Port Genset**  
 Fluid  
**Marathon 15W40 (35 GAL)**



## COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ATTENTION	ATTENTION
Visc @ 100°C	cSt	ASTM D445	▲ 17.4	▲ 19.0	▲ 17.6

Customer Id: MARCAT  
 Sample No.: WC0769021  
 Lab Number: 05927451  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Angela Borella +1 800-237-1369  
[angela.borella@wearcheckusa.com](mailto:angela.borella@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

### 15 Jul 2023 Diag: Doug Bogart

#### VISCOSITY



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)



### 15 Jun 2023 Diag: Don Baldrige

#### VISCOSITY



The oil filtered at the time of sampling has been noted. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)



### 23 May 2023 Diag: Don Baldrige

#### VISCOSITY



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

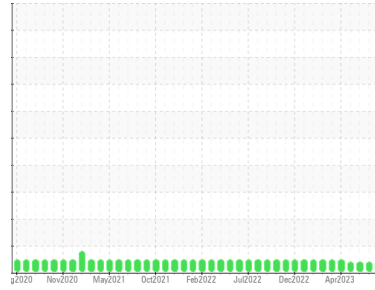
[view report](#)





# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Area  
**Findlay**  
 Machine Id  
**[Findlay] Oil - Port Genset**  
 Component  
**Port Genset**  
 Fluid  
**Marathon 15W40 (35 GAL)**

### DIAGNOSIS

#### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0769021</b>	WC0769467	WC0769463
Sample Date	Client Info		<b>09 Aug 2023</b>	15 Jul 2023	15 Jun 2023
Machine Age	hrs	Client Info	<b>8505</b>	8441	7997
Oil Age	hrs	Client Info	<b>1</b>	8258	7845
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Filtered
Sample Status			<b>ATTENTION</b>	ATTENTION	ATTENTION

### CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>25	<b>12</b>	25	21
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	0	<1
Lead	ppm	ASTM D5185m	>10	<b>1</b>	2	2
Copper	ppm	ASTM D5185m	>20	<b>2</b>	5	4
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>39</b>	49	52
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>50</b>	55	53
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1245</b>	1168	1176
Calcium	ppm	ASTM D5185m		<b>1395</b>	1673	1653
Phosphorus	ppm	ASTM D5185m		<b>1035</b>	1072	1134
Zinc	ppm	ASTM D5185m		<b>1327</b>	1344	1459
Sulfur	ppm	ASTM D5185m		<b>3946</b>	3730	4142

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	3	4
Sodium	ppm	ASTM D5185m		<b>2</b>	12	9
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	6

### INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		<b>0.2</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.9</b>	18.2	16.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.0</b>	31.1	30.1

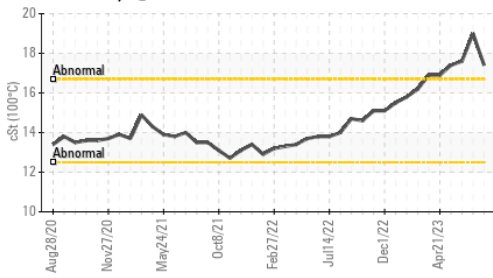
### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>27.0</b>	40.9	38.1
Base Number (BN)	mg KOH/g	ASTM D2896		<b>10.88</b>	7.77	8.31

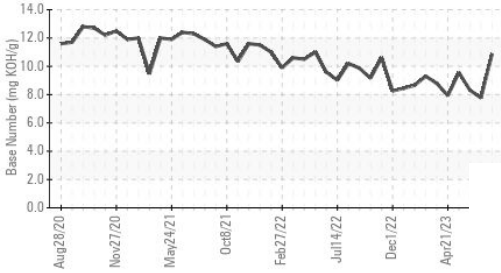


# OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



Base Number

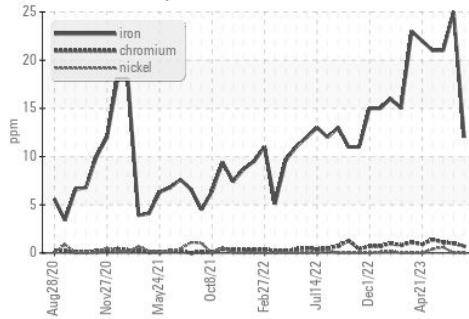


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

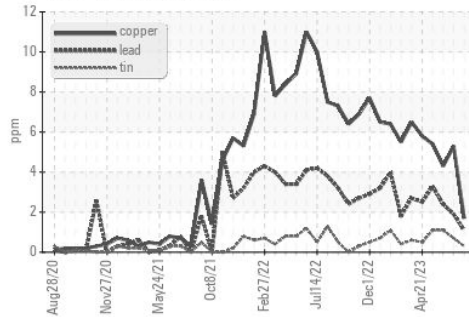
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	▲ 17.4	▲ 19.0	▲ 17.6

## GRAPHS

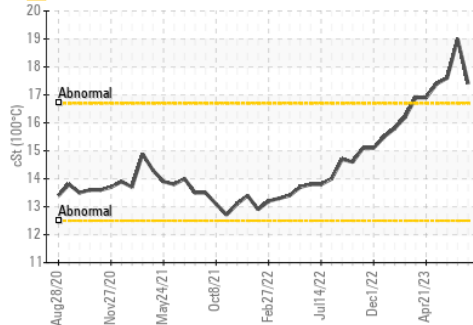
Ferrous Alloys



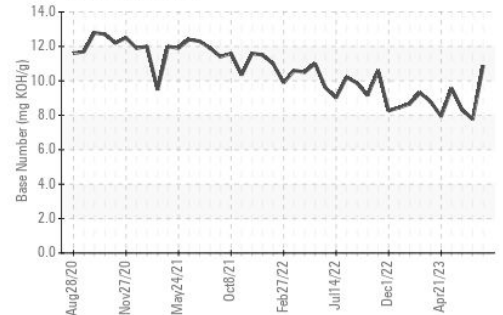
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0769021  
 Lab Number : 05927451  
 Unique Number : 10607398  
 Test Package : IND 2

Received : 17 Aug 2023  
 Diagnosed : 18 Aug 2023  
 Diagnostician : Angela Borella

**MARATHON PETROLEUM CO.**  
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 US 41169

Contact: SHAWN MCCLASKEY  
 stmccclaskey@marathonpetroleum.com

T: (606)739-2416

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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)