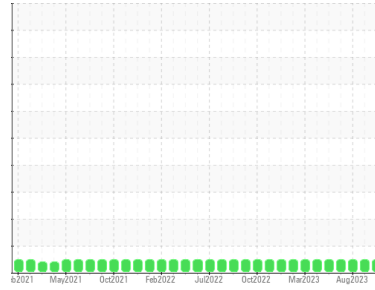




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Tri State**  
 Machine Id  
**[Tri State] Oil - Port Genset**  
 Component  
**Port Genset**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (5 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0846076</b>	WC0805321	WC0769164
Sample Date	Client Info			<b>30 Oct 2023</b>	26 Sep 2023	30 Aug 2023
Machine Age	hrs	Client Info		<b>11949</b>	11585	11284
Oil Age	hrs	Client Info		<b>338</b>	300	405
Oil Changed	Client Info			<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

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	>50	<b>6</b>	4	6
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>2</b>	<1	<1
Lead	ppm	ASTM D5185m	>17	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>70	<b>1</b>	<1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>29</b>	33	33
Barium	ppm	ASTM D5185m	10	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>68</b>	64	67
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>1524</b>	1579	1593
Calcium	ppm	ASTM D5185m	3000	<b>1103</b>	1143	1192
Phosphorus	ppm	ASTM D5185m	1150	<b>1050</b>	1027	1004
Zinc	ppm	ASTM D5185m	1350	<b>1235</b>	1316	1232
Sulfur	ppm	ASTM D5185m	4250	<b>3777</b>	3707	4096

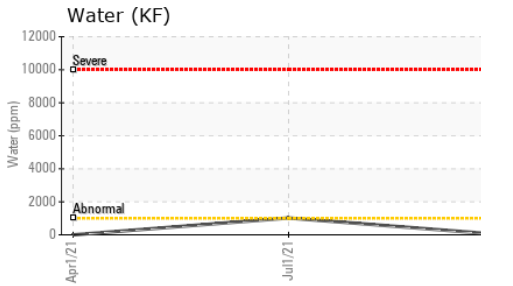
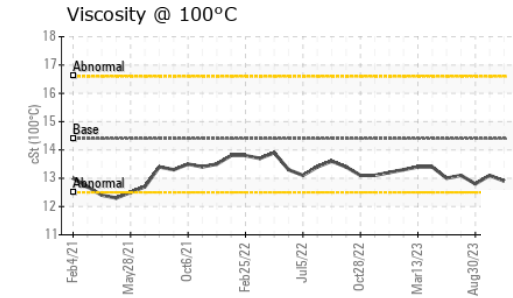
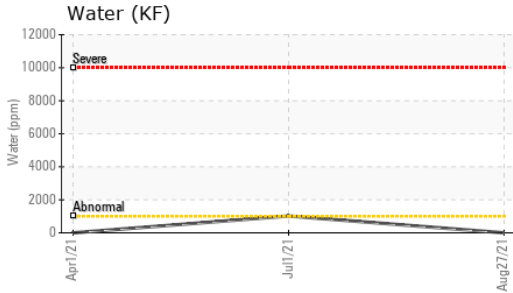
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>3</b>	3	3
Sodium	ppm	ASTM D5185m	>158	<b>2</b>	<1	1
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.8</b>	6.6	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.4</b>	18.0	18.5

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.1</b>	13.8	14.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>14.06</b>	13.14	12.61



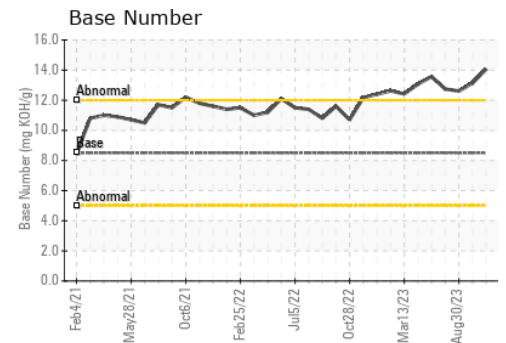
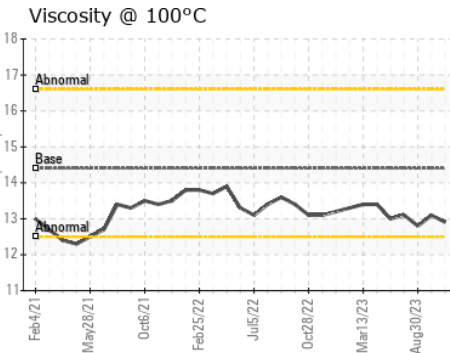
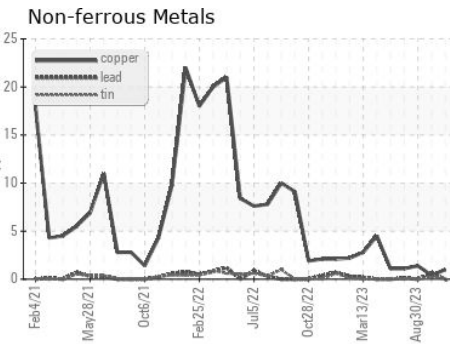
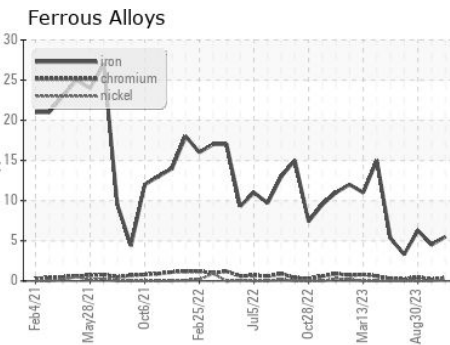
# OIL ANALYSIS REPORT



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 @ 100°C	cSt	ASTM D445	14.4	<b>12.9</b>	13.1	12.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0846076 **Received** : 01 Nov 2023  
**Lab Number** : **05995895** **Diagnosed** : 02 Nov 2023  
**Unique Number** : 10724255 **Diagnostician** : Sean Felton  
**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

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)

F: x: