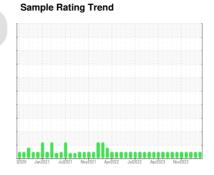


# **OIL ANALYSIS REPORT**

# Area Speedway [Speedway] Oil - Aft Genset

Aft Genset

**SAE 30W (8 GAL)** 





### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Jd Ridout )

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

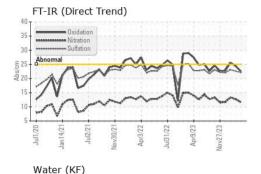
### **Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0860101	WC0860042	WC0845770
Sample Date		Client Info		10 Apr 2024	20 Mar 2024	03 Feb 2024
Machine Age	hrs	Client Info		12094	12140	11602
Oil Age	hrs	Client Info		12067	12033	11501
Oil Changed	1110	Client Info		Not Changd	Oil Added	Filtered
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	31	37	43
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	1	1	<1
Lead	ppm	ASTM D5185m	>17	0	0	0
Copper	ppm	ASTM D5185m		0	1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES	• •	and the section of	limit/bass		la faction and	hiotory?
ADDITIVES		metnoa		current	nistory i	HISTORY
	ppm	method ASTM D5185m	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	ilmii/base	8	7	6
Boron Barium	ppm	ASTM D5185m ASTM D5185m	IIIIII/Dase	8 0	7	6
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	8 0 66	7 0 65	6 0 65
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIII/Dase	8 0 66 <1	7 0 65 <1	6 0 65 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	8 0 66 <1 1463	7 0 65 <1 1536	6 0 65 <1 1559
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	8 0 66 <1	7 0 65 <1 1536 1179	6 0 65 <1 1559 1197
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIIVoase	8 0 66 <1 1463 1158 1129	7 0 65 <1 1536 1179 1133	6 0 65 <1 1559 1197 1119
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIIVoase	8 0 66 <1 1463 1158	7 0 65 <1 1536 1179	6 0 65 <1 1559 1197
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 66 <1 1463 1158 1129 1350	7 0 65 <1 1536 1179 1133 1397	6 0 65 <1 1559 1197 1119
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 66 <1 1463 1158 1129 1350 3770	7 0 65 <1 1536 1179 1133 1397 3889	6 0 65 <1 1559 1197 1119 1398 3309
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	8 0 66 <1 1463 1158 1129 1350 3770	7 0 65 <1 1536 1179 1133 1397 3889 history1	6 0 65 <1 1559 1197 1119 1398 3309
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	8 0 66 <1 1463 1158 1129 1350 3770 current	7 0 65 <1 1536 1179 1133 1397 3889 history1	6 0 65 <1 1559 1197 1119 1398 3309 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >20	8 0 66 <1 1463 1158 1129 1350 3770  current 5 12	7 0 65 <1 1536 1179 1133 1397 3889 history1 6 13	6 0 65 <1 1559 1197 1119 1398 3309 history2 7 13
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >20	8 0 66 <1 1463 1158 1129 1350 3770  current 5 12 <1	7 0 65 <1 1536 1179 1133 1397 3889 history1 6 13 0	6 0 65 <1 1559 1197 1119 1398 3309 history2 7 13 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >20 >0.1	8 0 66 <1 1463 1158 1129 1350 3770 current 5 12 <1 NEG	7 0 65 <1 1536 1179 1133 1397 3889 history1 6 13 0 NEG	6 0 65 <1 1559 1197 1119 1398 3309 history2 7 13 0 NEG
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304	limit/base >25 >20 >0.1 limit/base	8 0 66 <1 1463 1158 1129 1350 3770 current 5 12 <1 NEG current 0.2	7 0 65 <1 1536 1179 1133 1397 3889 history1 6 13 0 NEG history1 0.3	6 0 65 <1 1559 1197 1119 1398 3309 history2 7 13 0 NEG history2 0.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water INFRA-RED Soot %	ppm	ASTM D5185m	limit/base >25 >20 >0.1 limit/base	8 0 66 <1 1463 1158 1129 1350 3770  current 5 12 <1 NEG  current	7 0 65 <1 1536 1179 1133 1397 3889 history1 6 13 0 NEG history1	6 0 65 <1 1559 1197 1119 1398 3309 history2 7 13 0 NEG history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304  method  *ASTM D7844  *ASTM D7844	limit/base >25 >20 >0.1 limit/base	8 0 66 <1 1463 1158 1129 1350 3770  current 5 12 <1 NEG  current 0.2 11.6	7 0 65 <1 1536 1179 1133 1397 3889 history1 6 13 0 NEG history1 0.3 12.7	6 0 65 <1 1559 1197 1119 1398 3309 history2 7 13 0 NEG history2 0.3 13.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm	ASTM D5185m ASTM D6304  method  *ASTM D7844 *ASTM D7624 *ASTM D7415  method	limit/base >25 >20 >0.1 limit/base >20 >30 limit/base	8 0 66 <1 1463 1158 1129 1350 3770  current 5 12 <1 NEG  current 0.2 11.6 22.1  current	7 0 65 <1 1536 1179 1133 1397 3889 history1 6 13 0 NEG history1 0.3 12.7 22.6 history1	6 0 65 <1 1559 1197 1119 1398 3309 history2 7 13 0 NEG history2 0.3 13.3 23.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304  method  *ASTM D7844  *ASTM D7624  *ASTM D76145	limit/base >25 >20 >0.1 limit/base >20 >30 limit/base	8 0 66 <1 1463 1158 1129 1350 3770  current 5 12 <1 NEG  current 0.2 11.6 22.1	7 0 65 <1 1536 1179 1133 1397 3889 history1 6 13 0 NEG history1 0.3 12.7 22.6	6 0 65 <1 1559 1197 1119 1398 3309 history2 7 13 0 NEG history2 0.3 13.3 23.1



## **OIL ANALYSIS REPORT**



VISUAL		method				history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
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
<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

13.0

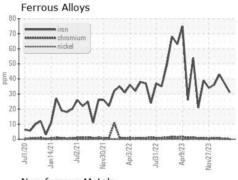
13.1

13.1

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Jul1/20	0ct31/2	Mar7/2	Jul2/2	0ct20/2	Feb16/2	

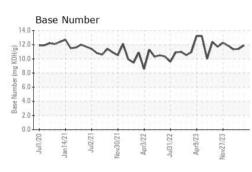


**FLUID PROPERTIES** 

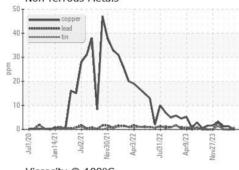


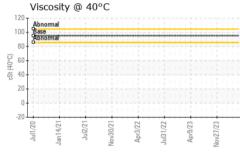
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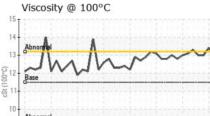
ASTM D445 11.5

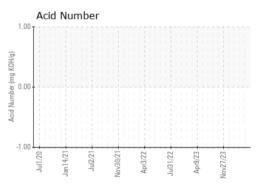


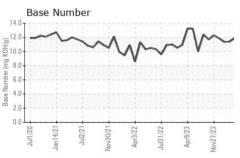














Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0860101

Received Lab Number : 06157869 **Tested** Unique Number : 10993292 Diagnosed

: 23 Apr 2024 : 25 Apr 2024 : 25 Apr 2024 - Sean Felton

Vov27/23

MARATHON PETROLEUM CO. 101 12TH ST

CATLETTSBURG, KY US 41169 Contact: CORY GUMBERT

Test Package : IND 2 ( Additional Tests: KF, KV40, TAN Man ) Certificate 12367 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.

cagumbert@marathonpetroleum.com T: (606)585-3950 F: x:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: M/V SPEEDWAY