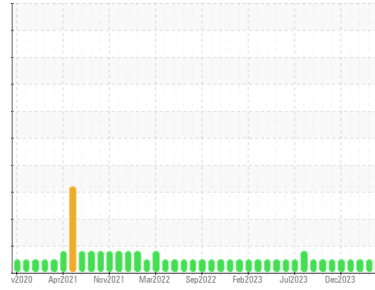




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Nashville
 Machine Id
[Nashville] Oil - Port Genset
 Component
Port Genset
 Fluid
MOBIL 15W40 (6 GAL)

DIAGNOSIS

Recommendation

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

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		WC0874894	WC0874899	WC0846028
Sample Date	Client Info		15 Apr 2024	18 Mar 2024	20 Feb 2024
Machine Age	hrs	Client Info	11362	10974	10758
Oil Age	hrs	Client Info	1127	738	497
Oil Changed	Client Info		Filtered	Not Changd	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	24	20	13
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	1	1	<1
Lead	ppm	ASTM D5185m	>17	<1	0	<1
Copper	ppm	ASTM D5185m	>70	0	1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		47	45	49
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		49	47	46
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		1116	1051	1080
Calcium	ppm	ASTM D5185m		1505	1471	1506
Phosphorus	ppm	ASTM D5185m		1029	988	957
Zinc	ppm	ASTM D5185m		1303	1230	1216
Sulfur	ppm	ASTM D5185m		3588	3554	3226

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	3	2	2
Sodium	ppm	ASTM D5185m	>118	2	2	2
Potassium	ppm	ASTM D5185m	>20	2	<1	1
Water	%	ASTM D6304	>0.1	NEG	NEG	NEG

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0.4	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	12.1	12.0	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.2	22.5	21.3

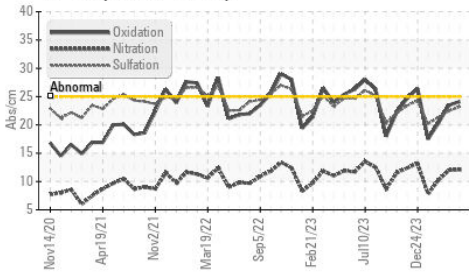
FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.1	23.5	20.4
Base Number (BN)	mg KOH/g	ASTM D2896		10.35	9.66	10.77

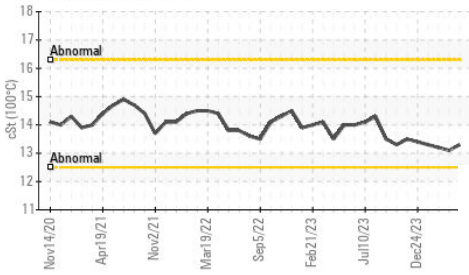


OIL ANALYSIS REPORT

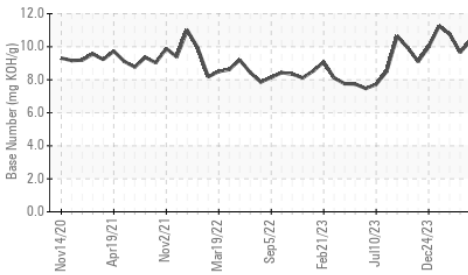
FT-IR (Direct Trend)



Viscosity @ 100°C



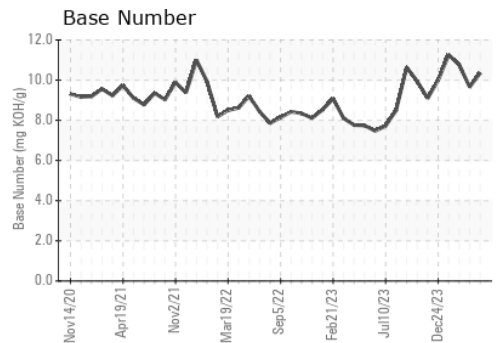
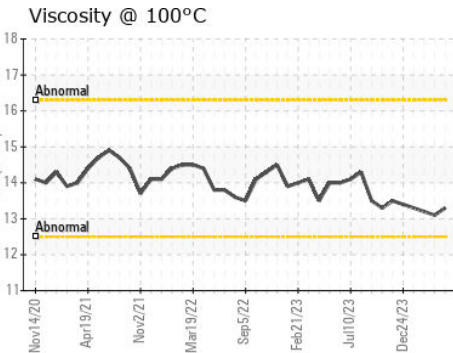
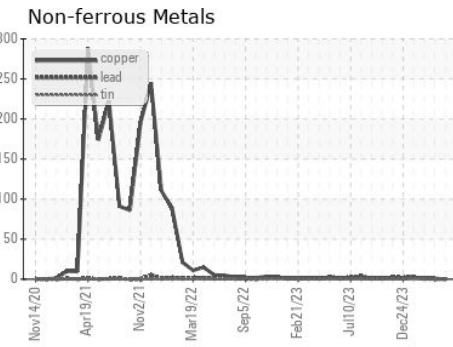
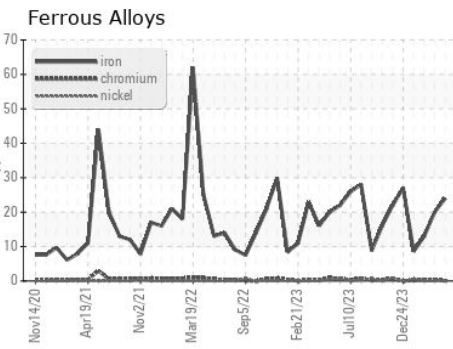
Base Number



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	13.3	13.1	13.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0874894 **Received** : 23 Apr 2024
Lab Number : 06157888 **Tested** : 25 Apr 2024
Unique Number : 10993311 **Diagnosed** : 25 Apr 2024 - 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

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)

T: (606)585-3950

F: x: