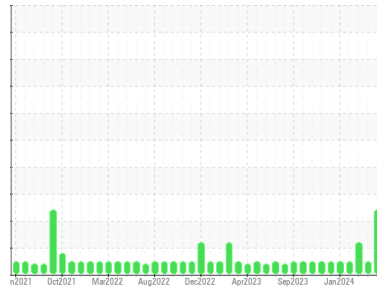




PROBLEM SUMMARY

Sample Rating Trend

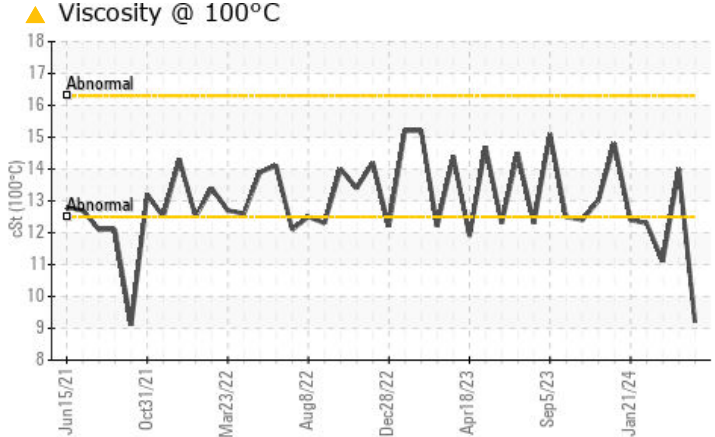
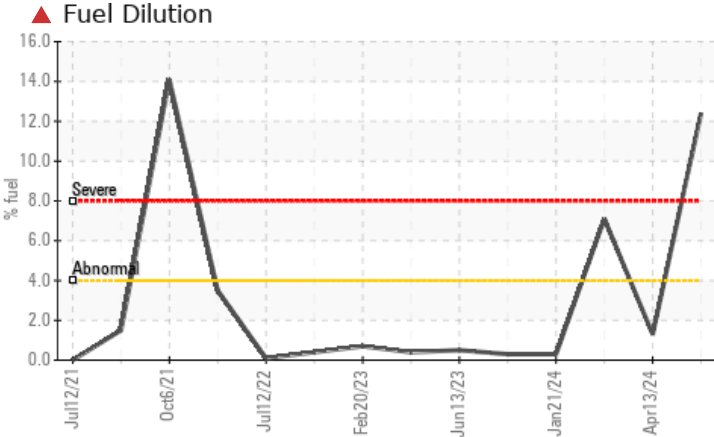


FUEL



Area
Martinsville
 Machine Id
[Martinsville] Oil - Port Genset
 Component
Port Genset
 Fluid
MOBIL 15W40 (7 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. (Customer Sample Comment: Will be serviced in a few days)

PROBLEMATIC TEST RESULTS

Sample Status		SEVERE	NORMAL	ABNORMAL
Fuel	% ASTM D3524 >4.0	▲ 12.4	1.3	▲ 7.1
Visc @ 100°C	cSt ASTM D445	▲ 9.2	14.0	▲ 11.1

Customer Id: MARCAT
 Sample No.: WC0845899
 Lab Number: 06210370
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

NORMAL



13 Apr 2024 Diag: Sean Felton

Resample at the next service interval. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



FUEL



18 Mar 2024 Diag: Jonathan Hester

We advise that you check the fuel injection system. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



NORMAL



15 Feb 2024 Diag: Jonathan Hester

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

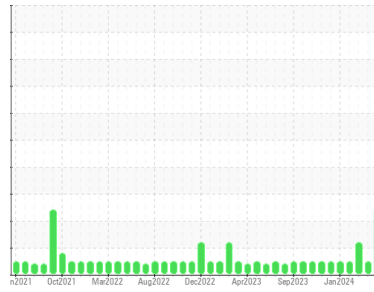
view report





OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
Martinsville
 Machine Id
[Martinsville] Oil - Port Genset
 Component
Port Genset
 Fluid
MOBIL 15W40 (7 GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. (Customer Sample Comment: Will be serviced in a few days)

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of fuel present in the oil.

▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0845899	WC0860092	WC0805454
Sample Date	Client Info		07 Jun 2024	13 Apr 2024	18 Mar 2024
Machine Age	hrs	Client Info	7746	7153	6973
Oil Age	hrs	Client Info	412	0	0
Oil Changed	Client Info		Filtered	Changed	Changed
Sample Status			SEVERE	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	3	<1	6
Chromium	ppm	ASTM D5185m >4	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	<1	<1	<1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >5	0	<1	<1
Aluminum	ppm	ASTM D5185m >12	10	2	2
Lead	ppm	ASTM D5185m >17	<1	<1	2
Copper	ppm	ASTM D5185m >70	<1	<1	1
Tin	ppm	ASTM D5185m >15	1	<1	<1
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	<1	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	11	13	24
Barium	ppm	ASTM D5185m	0	<1	0
Molybdenum	ppm	ASTM D5185m	57	56	60
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1328	1310	1326
Calcium	ppm	ASTM D5185m	1058	1074	1137
Phosphorus	ppm	ASTM D5185m	983	1009	985
Zinc	ppm	ASTM D5185m	1171	1160	1157
Sulfur	ppm	ASTM D5185m	3127	3267	3168

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	3	5	5
Sodium	ppm	ASTM D5185m >118	1	3	<1
Potassium	ppm	ASTM D5185m >20	1	2	2
Fuel	%	ASTM D3524 >4.0	▲ 12.4	1.3	▲ 7.1
Water	%	ASTM D6304 >0.1	NEG	NEG	NEG

INFRA-RED

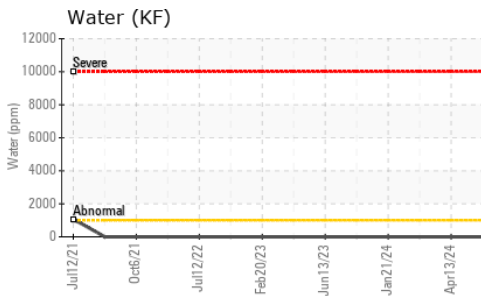
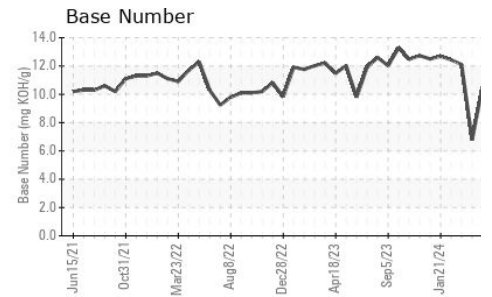
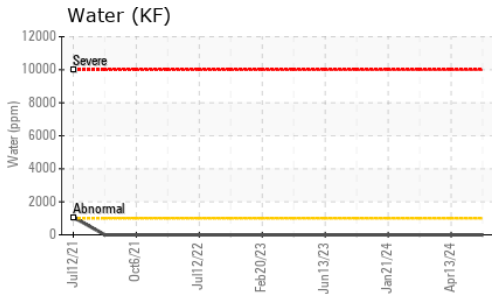
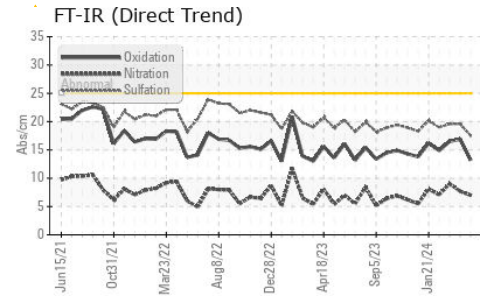
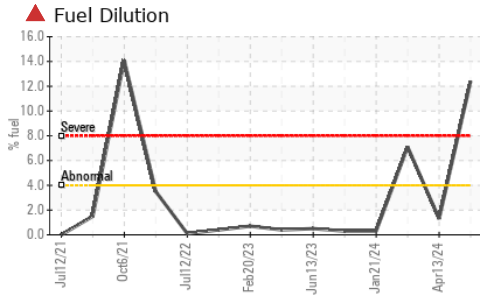
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0.1	0.2
Nitration	Abs/cm	*ASTM D7624 >20	7.0	7.7	9.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	17.5	19.6	19.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	13.2	16.9	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.50	6.77	12.10



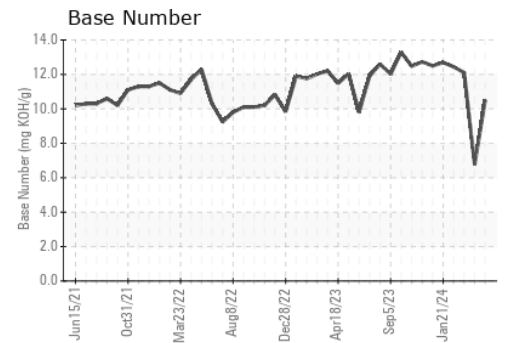
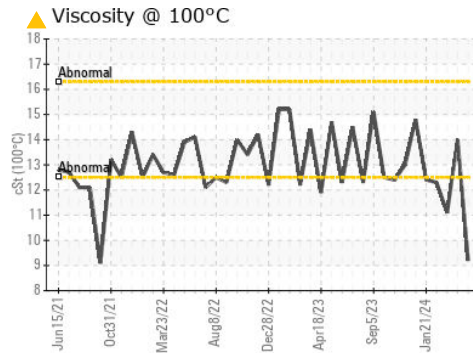
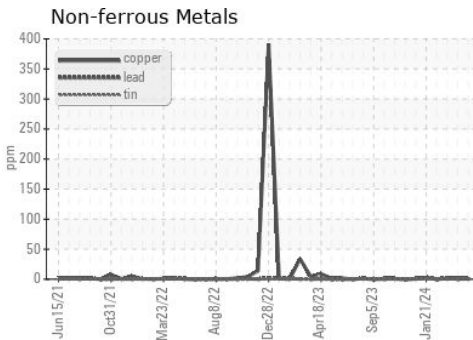
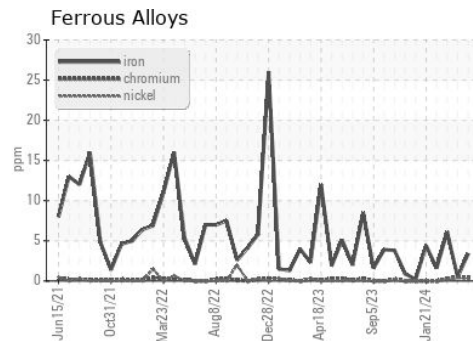
OIL ANALYSIS REPORT



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	▲ 9.2	14.0	▲ 11.1

GRAPHS



Certificate L2367

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

Sample No. : WC0845899

Lab Number : 06210370

Unique Number : 11083234

Test Package : IND 2 (Additional Tests: FuelDilution, KF, PercentFuel)

Received : 14 Jun 2024

Tested : 20 Jun 2024

Diagnosed : 20 Jun 2024 - Jonathan Hester

MARATHON PETROLEUM CO.

101 12TH ST

CATLETTSBURG, KY

US 41169

Contact: CORY GUMBERT

cagumbert@marathonpetroleum.com

T: (606)585-3950

F: x:

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)