

OIL ANALYSIS REPORT

Area Nashville [Nashville] Oil - Port Genset

Port Genset Fluid MOBIL 15W40 (6 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.

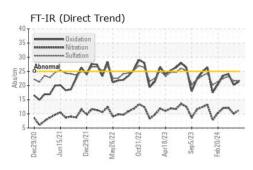


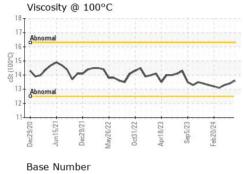
NORMAL

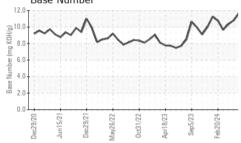
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0683378	WC0769321	WC0874894
Sample Date		Client Info		09 Jun 2024	13 May 2024	15 Apr 2024
Machine Age	hrs	Client Info		12141	11806	11362
Oil Age	hrs	Client Info		482	146	1127
Oil Changed		Client Info		Not Changd	Not Changd	Filtered
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	16	15	24
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>5	0	<1	0
Aluminum	ppm	ASTM D5185m	>12	2	2	1
Lead	ppm	ASTM D5185m	>17	<1	2	<1
Copper	ppm	ASTM D5185m	>70	1	3	0
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	<1 history1	0 history2
	ppm ppm		limit/base	-		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 37	history1 46	history2 47
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 37 0	history1 46 <1	history2 47 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 37 0 46	history1 46 <1 50	history2 47 0 49
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 37 0 46 <1	history1 46 <1 50 <1	history2 47 0 49 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 37 0 46 <1 1064	history1 46 <1 50 <1 1069	history2 47 0 49 <1 1116
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 37 0 46 <1 1064 1484	history1 46 <1 50 <1 1069 1430	history2 47 0 49 <1 1116 1505
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	Current 37 0 46 <1 1064 1484 1013	history1 46 <1 50 <1 1069 1430 1003	history2 47 0 49 <1 1116 1505 1029
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 37 0 46 <1 1064 1484 1013 1262	history1 46 <1 50 <1 1069 1430 1003 1228	history2 47 0 49 <1 1116 1505 1029 1303
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	current 37 0 46 <1 1064 1484 1013 1262 3701 current 3	history1 46 <1 50 <1 1069 1430 1003 1228 3235 history1 3	history2 47 0 49 <1 1116 1505 1029 1303 3588
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 37 0 46 <1 1064 1484 1013 1262 3701 current	history1 46 <1 50 <1 1069 1430 1003 1228 3235 history1	history2 47 0 49 <1 1116 1505 1029 1303 3588 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	current 37 0 46 <1 1064 1484 1013 1262 3701 current 3	history1 46 <1 50 <1 1069 1430 1003 1228 3235 history1 3	history2 47 0 49 <1 1505 1029 1303 3588 history2 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >118	current 37 0 46 <1 1064 1484 1013 1262 3701 current 3 4 Current	history1 46 <1 50 <1 1069 1430 1003 1228 3235 history1 3 2 4 history1	history2 47 0 49 <1 1505 1029 1303 3588 history2 3 2 2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base >25 >118 >20	current 37 0 46 <1 1064 1484 1013 1262 3701 current 3 4 current 0 0.3	history1 46 <1 50 <1 1069 1430 1003 1228 3235 history1 3 2 4	history2 47 0 49 <1 1116 1505 1029 1303 3588 history2 3 2 history2 0 1029 1303 3588 history2 3 2 history2 0.4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >118 >20 limit/base	current 37 0 46 <1 1064 1484 1013 1262 3701 current 3 4 Current	history1 46 <1 50 <1 1069 1430 1003 1228 3235 history1 3 2 4 history1	history2 47 0 49 <1 1505 1029 1303 3588 history2 3 2 2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >118 >20 limit/base	current 37 0 46 <1 1064 1484 1013 1262 3701 current 3 4 current 0 0.3	history1 46 <1 50 <1 1069 1430 1003 1228 3235 history1 3 2 4 history1 0.3	history2 47 0 49 <1 1116 1505 1029 1303 3588 history2 3 2 history2 0 1029 1303 3588 history2 3 2 history2 0.4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base >25 >118 >20 limit/base	current 37 0 46 <1 1064 1484 1013 1262 3701 current 3 4 current 0.3 11.3	history1 46 <1 50 <1 1069 1430 1003 1228 3235 history1 3 2 4 history1 0.3 10.0	history2 47 0 49 <1 1116 1505 1029 1303 3588 history2 3 2 history2 0.4 12.1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >25 >118 >20 limit/base >20 >30 limit/base	current 37 0 46 <1 1064 1484 1013 1262 3701 current 3 4 current 0.3 11.3 21.7	history1 46 <1 50 <1 1069 1430 1003 1228 3235 history1 3 2 4 history1 0.3 10.0 21.6	history2 47 0 49 <1 1116 1505 1029 1303 3588 history2 3 2 history2 0.4 12.1 23.2



OIL ANALYSIS REPORT







VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	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
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		13.6	13.4	13.3
GRAPHS						

Ferrous Alloys

Non-ferrous Metals

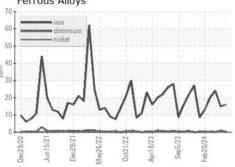
30

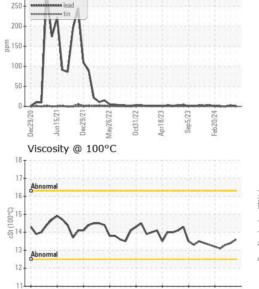
Dec29/20

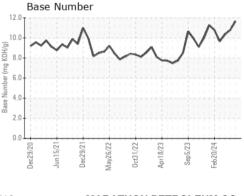
Jun 15/21

Jec29/21

Mav26/77







Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 MARATHON PETROLEUM CO. Sample No. : WC0683378 Received : 17 Jun 2024 101 12TH ST Lab Number : 06211934 Tested : 19 Jun 2024 CATLETTSBURG, KY Unique Number : 11084798 Diagnosed : 19 Jun 2024 - Angela Borella US 41169 Test Package : IND 2 Contact: CORY GUMBERT Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. cagumbert@marathonpetroleum.com T: (606)585-3950 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. F: x:

Apr18/23 en5/23 Feb20/24

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

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Submitted By: M/V NASHVILLE

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