

OIL ANALYSIS REPORT

Plymouth & Brockton Machine Id 11441

Component **Diesel Engine**

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

Andri 22 Juni 102 Anglo 22 Octo 22 Docto 22 Mari 1023 Juni 1023 Octo 23

Sample Rating Trend



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.

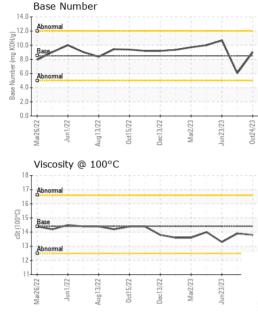
Fluid Condition

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 PCA0104567 PCA0013380	0 PCA0090670
Sample Date Client Info 24 Oct 2023 03 Aug 2023	23 Jun 2023
Machine Age mls Client Info 19768 174006	161601
Oil Age mls Client Info 24000 24000	12000
Oil Changed Client Info Changed Changed	Not Changd
Sample Status NORMAL NORMAL	NORMAL
CONTAMINATION method limit/base current history1	history2
Fuel WC Method >3.0 <1.0 <1.0	<1.0
Glycol WC Method NEG NEG	NEG
WEAR METALS method limit/base current history1	history2
Iron ppm ASTM D5185m >90 9 4	8
Chromium ppm ASTM D5185m >20 <1	<1
Nickel ppm ASTM D5185m >2 0 0	<1
Titanium ppm ASTM D5185m >2 0 0	0
Silver ppm ASTM D5185m >2 0 0	0
Aluminum ppm ASTM D5185m >20 1 <1	<1
Lead ppm ASTM D5185m >40 0 0	0
Copper ppm ASTM D5185m >330 0 <1	<1
Tin ppm ASTM D5185m >15 0 0	0
Vanadium ppm ASTM D5185m 0 0	0
Cadmium ppm ASTM D5185m 0 0	0
ADDITIVES method limit/base current history1	history2
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Boron ppm ASTM D5185m 250 4 3	13
Boron ppm ASTM D5185m 250 4 3 Barium ppm ASTM D5185m 10 0 0	13 0
Boron ppm ASTM D5185m 250 4 3 Barium ppm ASTM D5185m 10 0 0 Molybdenum ppm ASTM D5185m 100 57 56	13 0 62
Boron ppm ASTM D5185m 250 4 3 Barium ppm ASTM D5185m 10 0 0 Molybdenum ppm ASTM D5185m 100 57 56 Manganese ppm ASTM D5185m 0 0	13 0
Boron ppm ASTM D5185m 250 4 3 Barium ppm ASTM D5185m 10 0 0 Molybdenum ppm ASTM D5185m 100 57 56 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 450 878 840	13 0 62 <1
Boron ppm ASTM D5185m 250 4 3 Barium ppm ASTM D5185m 10 0 0 Molybdenum ppm ASTM D5185m 100 57 56 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 450 878 840 Calcium ppm ASTM D5185m 3000 1070 1068	13 0 62 <1 880
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Boron ppm ASTM D5185m 250 4 3 Barium ppm ASTM D5185m 10 0 0 Molybdenum ppm ASTM D5185m 100 57 56 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 450 878 840 Calcium ppm ASTM D5185m 3000 1070 1068 Phosphorus ppm ASTM D5185m 1150 908 960	13 0 62 <1 880 1091 982
Boron ppm ASTM D5185m 250 4 3 Barium ppm ASTM D5185m 10 0 0 Molybdenum ppm ASTM D5185m 100 57 56 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 450 878 840 Calcium ppm ASTM D5185m 3000 1070 1068 Phosphorus ppm ASTM D5185m 1150 908 960 Zinc ppm ASTM D5185m 1350 1208 1127	13 0 62 <1 880 1091 982 1171
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Boron ppm ASTM D5185m 250 4 3 Barium ppm ASTM D5185m 10 0 0 Molybdenum ppm ASTM D5185m 100 57 56 Manganese ppm ASTM D5185m 100 0 Magnesium ppm ASTM D5185m 450 878 840 Calcium ppm ASTM D5185m 3000 1070 1068 Phosphorus ppm ASTM D5185m 1150 908 960 Zinc ppm ASTM D5185m 1350 1208 1127 Sulfur ppm ASTM D5185m 4250 2859 3069 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >25 3 2 Sodium ppm ASTM D5185m >158 <1	13 0 62 <1 880 1091 982 1171 3082 history2 3 0 1 history2 0.8 7.2 20.0



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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

	LITTLO					
Visc @ 100°C	cSt	ASTM D445	14.4	13.8	13.9	13.3

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69		23	LC	60	2	20	ed-	60		23	LG	60	2	23	set-





Certificate L2367

Laboratory Sample No. Lab Number

Unique Number : 10735539

: PCA0104567 : 06001777

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

: 08 Nov 2023 : 10 Nov 2023 Diagnostician : Wes Davis

Test Package : MOB 2

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)

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