

OIL ANALYSIS REPORT

Sample Rating Trend





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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.

AL)		Jun2020 S	ep2020 Jul2021 Oct20.	21 Jul2022 Oct2022 Jun2023	Sep2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0082896	PCA0082812	PCA0069237
Sample Date		Client Info		20 Sep 2023	14 Jun 2023	17 Oct 2022
Machine Age	hrs	Client Info		0	0	5830
Oil Age	hrs	Client Info		564	540	5322
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	20	23	13
Chromium	ppm	ASTM D5185m	>20	1	2	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	0	4
Lead	ppm	ASTM D5185m	>40	4	2	4
Copper	ppm	ASTM D5185m	>330	1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		-	0	0
	ppm	AGTIVI DJ TOJITI		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
Cadmium ADDITIVES			limit/base			
		ASTM D5185m	limit/base	0	0	0
ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	0 history1	0 history2
ADDITIVES Boron	ppm ppm	ASTM D5185m method ASTM D5185m	limit/base	0 current 2	0 history1 2	0 history2 5
ADDITIVES Boron Barium	ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base	0 current 2 2	0 history1 2 2	0 history2 5 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 2 2 79	0 history1 2 2 60	0 history2 5 0 63
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 2 2 79 <1	0 history1 2 2 60 <1	0 history2 5 0 63 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 2 2 79 <1 1128	0 history1 2 2 60 <1 854	0 history2 5 0 63 <1 1047
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 2 2 79 <1 1128 1306	0 history1 2 2 60 <1 854 1027	0 history2 5 0 63 <1 1047 1288
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 2 2 79 <1 1128 1306 1239	0 history1 2 2 60 <1 854 1027 964	0 history2 5 0 63 <1 1047 1288 1065
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 2 2 79 <1 1128 1306 1239 1491	0 history1 2 2 60 <1 854 1027 964 1123	0 history2 5 0 63 <1 1047 1288 1065 1433
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 2 2 79 <1 1128 1306 1239 1491 3726	0 history1 2 2 60 <1 854 1027 964 1123 2665	0 history2 5 0 63 <1 1047 1288 1065 1433 3879
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 2 2 79 <1 1128 1306 1239 1491 3726 current	0 history1 2 2 60 <1 854 1027 964 1123 2665 history1	0 history2 5 0 63 <1 1047 1288 1065 1433 3879 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 2 2 79 <1 1128 1306 1239 1491 3726 current 7	0 history1 2 2 60 <1 854 1027 964 1123 2665 history1 8	0 history2 5 0 63 <1 1047 1288 1065 1433 3879 history2 7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 current 2 2 79 <1 1128 1306 1239 1491 3726 current 7 0	0 history1 2 2 60 <1 854 1027 964 1123 2665 history1 8 0	0 history2 5 0 63 <1 1047 1288 1065 1433 3879 history2 7 1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20	0 current 2 2 79 <1 1128 1306 1239 1491 3726 current 7 0 9	0 history1 2 2 60 <1 854 1027 964 1123 2665 history1 8 0 4	0 history2 5 0 63 <1 1047 1288 1065 1433 3879 history2 7 1 7 1 7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	0 current 2 2 79 <1 1128 1306 1239 1491 3726 current 7 0 9 current	0 history1 2 2 60 <1 854 1027 964 1123 2665 history1 8 0 4 history1	0 history2 5 0 63 <1 1047 1288 1065 1433 3879 history2 7 1 7 1 7 1 7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	0 current 2 2 79 <1 1128 1306 1239 1491 3726 current 7 0 9 current 0.4	0 history1 2 2 60 <1 854 1027 964 1123 2665 history1 8 0 4 history1 0.3	0 history2 5 0 63 <1 1047 1288 1065 1433 3879 history2 7 1 7 1 7 1 7 1 5 0.3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20	0 current 2 2 79 <1 1128 1306 1239 1491 3726 current 7 0 9 current 0.4 8.8	0 history1 2 2 60 <1 854 1027 964 1123 2665 history1 8 0 4 4 history1 0.3 8.7	0 history2 5 0 63 <1 1047 1288 1065 1433 3879 history2 7 1 3 7 1 7 history2 0.3 8.9
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20 >30 >30	0 current 2 2 79 <1 1128 1306 1239 1491 3726 current 7 0 9 current 0.4 8.8 20.2	0 history1 2 2 60 <1 854 1027 964 1123 2665 history1 8 0 4 4 0.3 8 0.3 8.7 19.6	0 history2 5 0 63 <1 1047 1288 1065 1433 3879 history2 7 1 7 1 7 1 7 0.3 8.9 20.8



13 Abnormal

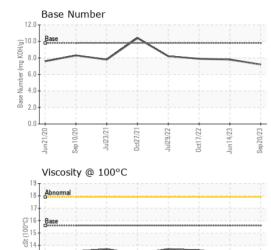
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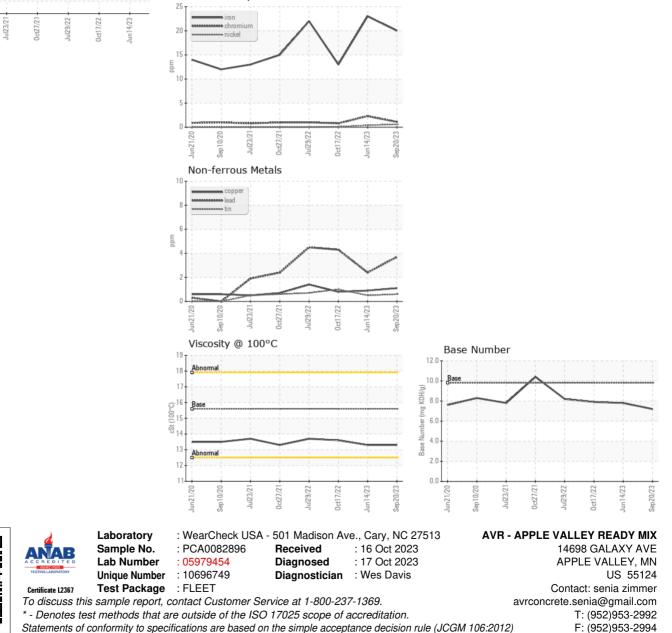
Jun21/20

Sep10/20

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
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	13.3	13.3	13.6
GRAPHS						
Ferrous Alloys						



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