

OIL ANALYSIS REPORT

NORMAL

Machine Id PETERBILT 15

Component Diesel Engine

Fluid PETRO CANADA DURON HP 15W40 (4 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.

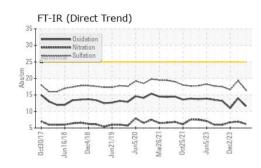
Fluid Condition

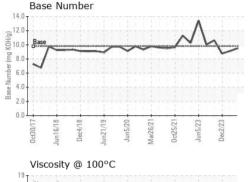
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0104388	PCA0109622	PCA0098378
Sample Date		Client Info		29 Feb 2024	07 Feb 2024	02 Dec 2023
Machine Age	mls	Client Info		278480	273683	271912
Oil Age	mls	Client Info		4797	1771	5618
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
			>100		0	7
Iron	ppm			6 0	0	
Chromium	ppm		>20 >4	0 <1	0	<1 0
Nickel	ppm	ASTM D5185m ASTM D5185m	>4	<1	0	0
Titanium Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>3 >20	4	2	4
Lead	ppm		>20	4	1	0
Copper	ppm		>330	0 <1	<1	2
Tin	ppm	ASTM D5185m	>330	<1	<1	0
Vanadium	ppm	ASTM D5185m	>10	<1	0	0
Cadmium	ppm					
				0		
	ppm	ASTM D5185m		0	0	0
ADDITIVES	ppm	method	limit/base	0 current	0 history1	history2
	ppm		limit/base		-	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 28	history1 21	history2 13
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 28 0	history1 21 0 37 <1	history2 13 0 28 <1
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 28 0 43 <1 696	history1 21 0 37 <1 530	history2 13 0 28 <1 424
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 28 0 43 <1 696 1350	history1 21 0 37 <1 530 1348	history2 13 0 28 <1 424 1691
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 28 0 43 <1 696 1350 982	history1 21 0 37 <1 530 1348 843	history2 13 0 28 <1 424 1691 929
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 28 0 43 <1 696 1350 982 1170	history1 21 0 37 <1 530 1348 843 1037	history2 13 0 28 <1 424 1691 929 1127
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 ASTM D5185m		current 28 0 43 <1 696 1350 982 1170 3924	history1 21 0 37 <1 530 1348 843 1037 2995	history2 13 0 28 <1 424 1691 929 1127 3358
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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	28 0 43 <1 696 1350 982 1170 3924 current	history1 21 0 37 <1 530 1348 843 1037	history2 13 0 28 <1 424 1691 929 1127 3358 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m		current 28 0 43 <1 696 1350 982 1170 3924	history1 21 0 37 <1 530 1348 843 1037 2995 history1 <1	history2 13 0 28 <1 424 1691 929 1127 3358 history2 5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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 ASTM D5185m	limit/base	28 0 43 <1 696 1350 982 1170 3924 current	history1 21 0 37 <1 530 1348 843 1037 2995 history1 <1 <1	history2 13 0 28 <1 424 1691 929 1127 3358 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 28 0 43 <1 696 1350 982 1170 3924 current 5	history1 21 0 37 <1 530 1348 843 1037 2995 history1 <1	history2 13 0 28 <1 424 1691 929 1127 3358 history2 5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 28 0 43 <1 696 1350 982 1170 3924 current 5 1 3 current	history1 21 0 37 <1 530 1348 843 1037 2995 history1 <1 <1 2 history1	history2 13 0 28 <1 424 1691 929 1127 3358 history2 5 0 3 history2
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	method ASTM D5185m	limit/base >25 >20	current 28 0 43 <1 696 1350 982 1170 3924 current 5 1 3 current 0.2	history1 21 0 37 <1 530 1348 843 1037 2995 history1 <1 <1 2 history1 0 0.2	history2 13 0 28 <1 424 1691 929 1127 3358 history2 5 0 3 history2 0 3
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	method ASTM D5185m	limit/base >25 >20 limit/base	current 28 0 43 <1 696 1350 982 1170 3924 current 5 1 3 current	history1 21 0 37 <1 530 1348 843 1037 2995 history1 <1 <1 2 history1	history2 13 0 28 <1 424 1691 929 1127 3358 history2 5 0 3 history2
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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	method ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20	current 28 0 43 <1 696 1350 982 1170 3924 current 5 1 3 current 0.2 6.2	history1 21 0 37 <1 530 1348 843 1037 2995 history1 <1 <1 2 history1 <1 0.2 6.9	history2 13 0 28 <1 424 1691 929 1127 3358 history2 5 0 3 history2 0 3 0 0 3
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	method ASTM D5185m ASTM D5185m	Imit/base >25 >20 Imit/base >20 >3 >20 >30	current 28 0 43 <1 696 1350 982 1170 3924 current 5 1 3 current 0.2 6.2 16.5	history1 21 0 37 <1 530 1348 843 1037 2995 history1 <1 <1 2 history1 0.2 6.9 19.3	history2 13 0 28 <1 424 1691 929 1127 3358 history2 5 0 33 history2 0.2 6.7 16.6



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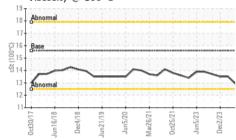
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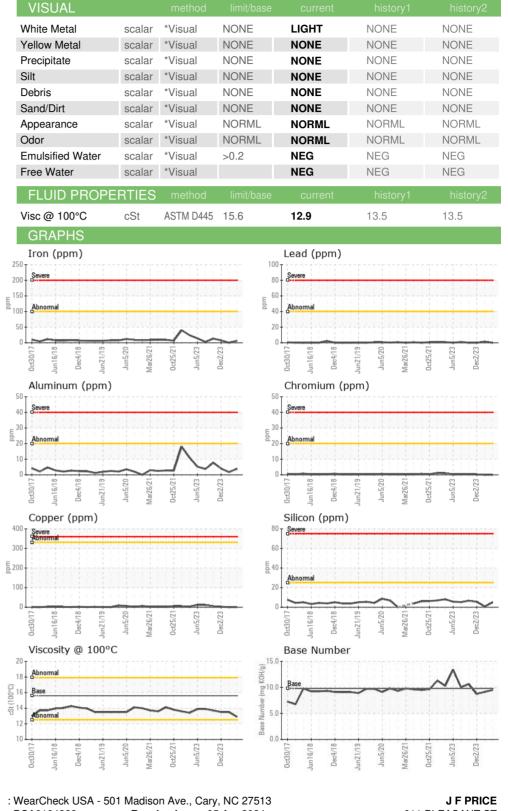
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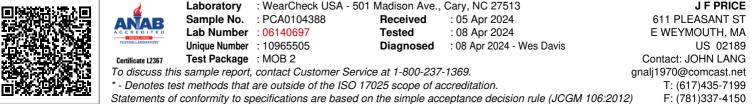
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St (100°C)

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Submitted By: JOHN LANG

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