

OIL ANALYSIS REPORT

Sample Rating Trend

(33514ME) Walgreens - Tractor [Walgreens - Tractor] 136D25695

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 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

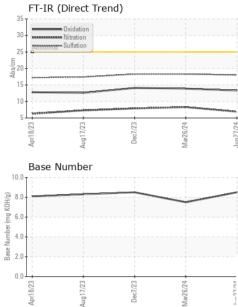
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

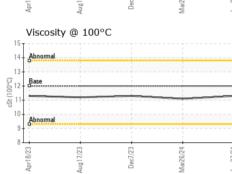
	NATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0123066	PCA0110588	PCA0110529
Sample Date		Client Info		27 Jun 2024	26 Mar 2024	07 Dec 2023
Machine Age	mls	Client Info		95533	90753	85619
Oil Age	mls	Client Info		90399	90753	4775
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	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 METALS	S	method	limit/base	current	history1	history2
		ASTM D5185m	>110	17	24	40
Iron Chromium	ppm	ASTM D5185m ASTM D5185m	>110	17 <1	24	40
	ppm		>4	0		4
Nickel Titanium	ppm	ASTM D5185m ASTM D5185m	>८	8	<1 25	5
Silver	ppm	ASTM D5185m	>2	-	25	0
Aluminum	ppm	ASTM D5185m	>2	<1 3	3	5
	ppm	ASTM D5185m	>25	0	<1	0
Lead	ppm		>45	6	<1	<1
Copper Tin	ppm	ASTM D5185m ASTM D5185m	>00	0 <1	<1	<1
Vanadium	ppm	ASTM D5185m	>4	<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
	ppm			U		
ADDITIVES		method			history1	history2
						, , , , , , , , , , , , , , , , , , ,
Boron	ppm	ASTM D5185m	2	20	44	19
Boron Barium	ppm ppm				· · · · · · · · · · · · · · · · · · ·	
		ASTM D5185m ASTM D5185m ASTM D5185m	2	20	44 0 42	19
Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m	2 0	20 <1	44 0	19 0 52 <1
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	20 <1 54	44 0 42	19 0 52
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	20 <1 54 0	44 0 42 <1	19 0 52 <1
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 9 950 1050 995	20 <1 54 0 856	44 0 42 <1 776 1422 1063	19 0 52 <1 817 1113 938
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	20 <1 54 0 856 1234	44 0 42 <1 776 1422 1063 1272	19 0 52 <1 817 1113 938 1153
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	20 <1 54 0 856 1234 947	44 0 42 <1 776 1422 1063 1272 4227	19 0 52 <1 817 1113 938 1153 2958
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	20 <1 54 0 856 1234 947 1206	44 0 42 <1 776 1422 1063 1272	19 0 52 <1 817 1113 938 1153
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	20 <1 54 0 856 1234 947 1206 2974 current 5	44 0 42 <1 776 1422 1063 1272 4227 history1 5	19 0 52 <1 817 1113 938 1153 2958 history2 7
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	20 <1 54 0 856 1234 947 1206 2974 current	44 0 42 <1 776 1422 1063 1272 4227 history1	19 0 52 <1 817 1113 938 1153 2958 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	20 <1 54 0 856 1234 947 1206 2974 current 5	44 0 42 <1 776 1422 1063 1272 4227 history1 5	19 0 52 <1 817 1113 938 1153 2958 history2 7
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >30	20 <1 54 0 856 1234 947 1206 2974 current 5 0	44 0 42 <1 776 1422 1063 1272 4227 history1 5 3	19 0 52 <1 817 1113 938 1153 2958 history2 7 3
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >30	20 <1 54 0 856 1234 947 1206 2974 current 5 0 7	44 0 42 <1 776 1422 1063 1272 4227 history1 5 3 2	19 0 52 <1 817 1113 938 1153 2958 history2 7 3 1
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 ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >30 >20 Imit/base	20 <1 54 0 856 1234 947 1206 2974 current 5 0 7 current	44 0 42 <1 776 1422 1063 1272 4227 history1 5 3 2 2 history1	19 0 52 <1 817 1113 938 1153 2958 history2 7 3 1 1 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >30 >20 Imit/base >3	20 <1 54 0 856 1234 947 1206 2974 <i>current</i> 5 0 7 <i>current</i> 0.3	44 0 42 <1 776 1422 1063 1272 4227 history1 5 3 2 2 history1 0.4	19 0 52 <1 817 1113 938 1153 2958 history2 7 3 1 history2 0.4
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm t ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >30 >20 imit/base >3 >20	20 <1 54 0 856 1234 947 1206 2974 <i>current</i> 5 0 7 <i>current</i> 0.3 6.9	44 0 42 <1 776 1422 1063 1272 4227 history1 5 3 2 bistory1 0.4 8.3	19 0 52 <1 817 1113 938 1153 2958 history2 7 3 1 5 1 history2 0.4 7.9
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 t ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >30 >20 imit/base >3 >20	20 <1 54 0 856 1234 947 1206 2974 current 5 0 7 current 0.3 6.9 18.0	44 0 42 <1 776 1422 1063 1272 4227 history1 5 3 2 history1 0.4 8.3 18.3	19 0 52 <1 817 1113 938 1153 2958 history2 7 3 1 history2 0.4 7.9 18.3

NORMAL

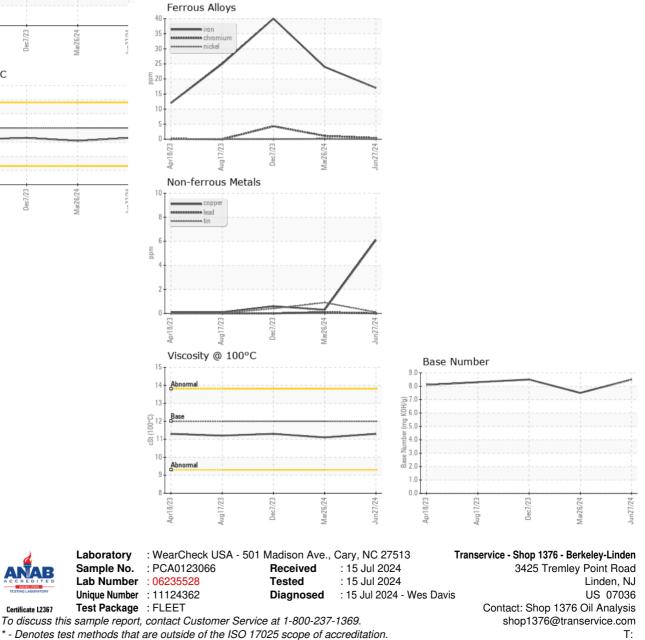


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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	12.00	11.3	11.1	11.3
GRAPHS						



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

Certificate 12367

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