

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area (50941Z) Walgreens - Tractor [Walgreens - Tractor] 136A63260

Diesel Engine

Fluid 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.

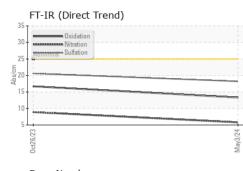
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2		
Sample Number		Client Info		PCA0105706	PCA0105690			
Sample Date		Client Info		03 May 2024	26 Oct 2023			
Machine Age	mls	Client Info		114895	60969			
Oil Age	mls	Client Info		0	50000			
Oil Changed		Client Info		N/A	Changed			
Sample Status				NORMAL	NORMAL			
CONTAMINAT	ION	method	limit/base	current	history1	history2		
Fuel		WC Method	>5	<1.0	<1.0			
Water		WC Method	>0.2	NEG	NEG			
Glycol		WC Method		NEG	NEG			
WEAR METALS method limit/base current history1 history2								
Iron	ppm	ASTM D5185m	>80	6	31			
Chromium	ppm	ASTM D5185m	>5	1	4			
Nickel	ppm	ASTM D5185m	>2	0	<1			
Titanium	ppm	ASTM D5185m		0	0			
Silver	ppm	ASTM D5185m	>3	0	<1			
Aluminum	ppm	ASTM D5185m	>30	2	6			
Lead	ppm	ASTM D5185m	>30	0	0			
Copper	ppm	ASTM D5185m	>150	14	196			
Tin	ppm	ASTM D5185m	>5	<1	2			
Vanadium	ppm	ASTM D5185m		0	0			
Cadmium	ppm	ASTM D5185m		0	0			
ADDITIVES		method	limit/base	current	history1	history2		
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 5	history1 6	history2		
	ppm ppm					history2 		
Boron		ASTM D5185m	2	5	6			
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	5 1	6 0			
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	5 1 57	6 0 61			
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	5 1 57 <1	6 0 61 <1			
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	5 1 57 <1 901	6 0 61 <1 979			
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	5 1 57 <1 901 1112	6 0 61 <1 979 1070	 		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	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	5 1 57 <1 901 1112 1075	6 0 61 <1 979 1070 1009	 		
Boron 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	5 1 57 <1 901 1112 1075 1208	6 0 61 <1 979 1070 1009 1260			
Boron 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 ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	5 1 57 <1 901 1112 1075 1208 3460	6 0 61 <1 979 1070 1009 1260 2435			
Boron 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 ASTM D5185m	2 0 50 950 1050 995 1180 2600	5 1 57 <1 901 1112 1075 1208 3460 current	6 0 61 <1 979 1070 1009 1260 2435 history1	 history2		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	2 0 50 950 1050 995 1180 2600	5 1 57 <1 901 1112 1075 1208 3460 current 3	6 0 61 <1 979 1070 1009 1260 2435 history1 4	 history2		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	2 0 50 950 1050 995 1180 2600 Limit/base >20	5 1 57 <1 901 1112 1075 1208 3460 current 3 1	6 0 61 <1 979 1070 1009 1260 2435 history1 4 <1	 history2		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	5 1 57 <1 901 1112 1075 1208 3460 current 3 1 1	6 0 61 <1 979 1070 1009 1260 2435 history1 4 < 12	 history2 		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base	5 1 57 <1 901 1112 1075 1208 3460 current 3 1 1 1 current	6 0 61 <1 979 1070 1009 1260 2435 history1 4 <1 12 history1	 history2 history2		
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 ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >20 20 Imit/base >20	5 1 57 <1 901 1112 1075 1208 3460 current 3 1 1 1 current 0.3	6 0 61 <1 979 1070 1009 1260 2435 history1 4 <1 12 history1 0.6	 history2 history2 history2		
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 ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >20 <i>imit/base</i> >3 >20	5 1 57 <1 901 1112 1075 1208 3460 <u>current</u> 3 1 1 <u>current</u> 0.3 5.8	6 0 61 <1 979 1070 1009 1260 2435 history1 4 <1 12 history1 0.6 8.9	 history2 history2		
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 ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >3	5 1 57 <1 901 1112 1075 1208 3460 current 3 1 1 current 0.3 5.8 18.2	6 0 61 <1 979 1070 1009 1260 2435 history1 4 <1 12 history1 0.6 8.9 20.6	 history2 history2 history2		
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 TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	2 0 50 0 950 1050 995 1180 2600 2600 20 20 20 20 20 3 20 20 3 20 3	5 1 57 <1 901 1112 1075 1208 3460 <i>current</i> 3 1 1 <i>current</i> 0.3 5.8 18.2 <i>current</i>	6 0 61 <1 979 1070 1009 1260 2435 history1 4 <1 12 history1 0.6 8.9 20.6 history1	 history2 history2 history2 history2		

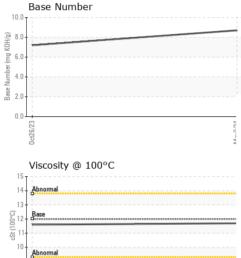


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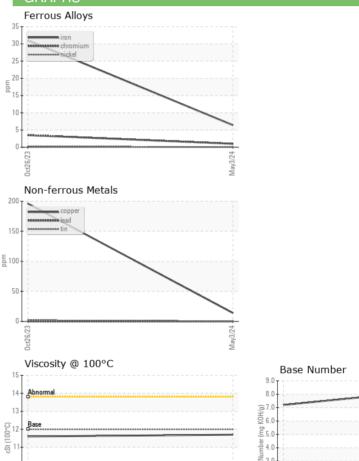
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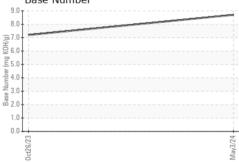


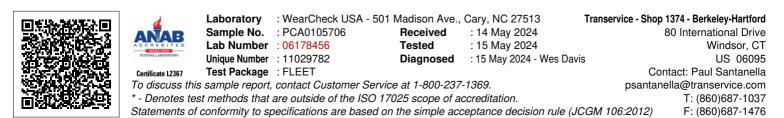


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.7	11.6	
GRAPHS						



May3/24 -





Contact/Location: Paul Santanella - TSV1374