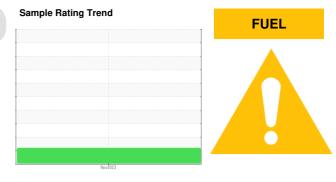


## **PROBLEM SUMMARY**

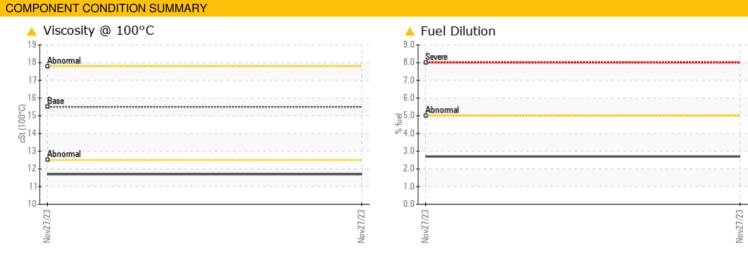
CATERPILLAR 745D 13403 (S/N 3T606051)



# PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

Component **Diesel Engine** 

Fluid



### RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Sample Status				ABNORMAL	 
Fuel	%	ASTM D3524	>5	<b>A</b> 2.7	 
Visc @ 100°C	cSt	ASTM D445	15.5	<b>11.7</b>	 

Customer Id: TRANEW Sample No.: WC0863009 Lab Number: 06026196 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

2		~				~
PROBLEMATIC 1	EST RE	SULTS				
Sample Status				ABNORMAL	 	
Fuel	%	ASTM D3524	>5	<u> </u>	 	

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS



### **OIL ANALYSIS REPORT**

Sample Rating Trend

FUEL



Machine Id CATERPILLAR 745D 13403 (S/N 3T606051) Component **Diesel Engine** 

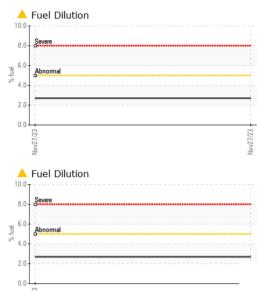
Fluid PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

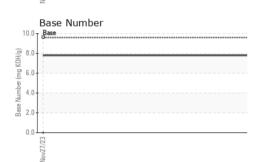
PETRO CANADA DURON >					Nov2023		
DIAGNOSIS	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		WC0863009		
e oil change at the time of sampling has been	Sample Date		Client Info		27 Nov 2023		
ed. Resample at the next service interval to	Machine Age	hrs	Client Info		567		
nitor.	Oil Age	hrs	Client Info		567		
ar	Oil Changed		Client Info		Changed		
tal levels are typical for a components first oil nge.	Sample Status				ABNORMAL		
Contamination	CONTAMINATIO	N	method	limit/base	current	history1	history
nt fuel dilution occurring.	Water		WC Method	>0.2	NEG		
luid Condition	Glycol		WC Method		NEG		
BN result indicates that there is suitable linity remaining in the oil. Fuel is present in the	WEAR METALS		method	limit/base	current	history1	history
and is lowering the viscosity. The condition of the	Iron	ppm	ASTM D5185m	>100	38		
s suitable for further service.	Chromium	ppm	ASTM D5185m	>20	<1		
	Nickel	ppm	ASTM D5185m	>2	0		
	Titanium	ppm	ASTM D5185m	>2	0		
	Silver	ppm	ASTM D5185m	>2	0		
	Aluminum	ppm	ASTM D5185m	>25	2		
	Lead	ppm	ASTM D5185m	>40	2		
	Copper	ppm	ASTM D5185m	>330	936		
	Tin	ppm	ASTM D5185m		2		
	Vanadium	ppm	ASTM D5185m		0		
	Cadmium	ppm	ASTM D5185m		0		
	ADDITIVES		method	limit/base	current	history1	history
	Boron	ppm	ASTM D5185m	1	19		
	Boron Barium	ppm mqq			19 3		
	Barium	ppm	ASTM D5185m	1	3		
	Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	1 60	3 44		
	Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1 60 1	3 44 <1		
	Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 60 1 1010	3 44 <1 577	  	  
	Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 60 1 1010 1070	3 44 <1 577 1417		  
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 60 1 1010 1070 1150	3 44 <1 577 1417 855	  	  
	Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 60 1 1010 1070	3 44 <1 577 1417		  
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 60 1 1010 1070 1150 1270	3 44 <1 577 1417 855 1064 2796	   	    
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 60 1 1010 1070 1150 1270 2060	3 44 <1 577 1417 855 1064 2796 current		    
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 60 1 1010 1070 1150 1270 2060	3 44 <1 577 1417 855 1064 2796 current 15	     history1	     history:
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	1 60 1 1010 1070 1150 1270 2060 limit/base >25	3 44 <1 577 1417 855 1064 2796 current 15 1	     history1 	    history:
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 60 1 1010 1070 1150 1270 2060 limit/base >25 	3 44 <1 577 1417 855 1064 2796 current 15	     history1	     history: 
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium	ppm ppm 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 ASTM D5185m	1 60 1 1010 1070 1150 1270 2060 limit/base >25 	3 44 <1 577 1417 855 1064 2796 current 15 1 15 1 2 2 2.7	     history1	    history:  
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1 60 1 1010 1070 1150 1270 2060 2060 225 225 >20 >20 >5	3 44 <1 577 1417 855 1064 2796 <u>current</u> 15 1 2 2 2.7 ▲ 2.7	      history1   	    history:  
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524	1 60 1 1010 1070 1150 1270 2060 limit/base >25 >20 >5 limit/base >3	3 44 <1 577 1417 855 1064 2796 <u>current</u> 15 1 2 2 2.7 <u>current</u> 0.3	     history1    i i history1	    history:    history:
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm S ppm ppm	ASTM D5185m ASTM D5185m	1 60 1 1010 1070 1150 1270 2060 2060 2060 225 20 >20 55 1imit/base >3 >20	3 44 <1 577 1417 855 1064 2796 <u>current</u> 15 1 2 2 2.7 ▲ 2.7	     history1    history1 	    history:   history:
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5244 *ASTM D7844 *ASTM D7844	1 60 1 1010 1070 1150 1270 2060 2060 2060 225 20 >20 55 1imit/base >3 >20	3 44 <1 577 1417 855 1064 2796 <u>current</u> 15 1 2 2 ▲ 2.7 <u>current</u> 0.3 9.9 23.1	       history1     history1	    history2   history2  history2
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524 <b>method</b> *ASTM D78444 *ASTM D7624 ASTM D7415	1 60 1 1010 1070 1150 1270 2060 limit/base >25 20 >5 20 >5 20 >3 20 >3 20 >30	3 44 <1 577 1417 855 1064 2796 current 15 1 2 2 2 2.7 current 0.3 9.9 23.1 current	history1 history1 history1 history1 history1 history1 history1	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li>history2</li> </ul>
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1 60 1 1010 1070 1150 1270 2060  limit/base >25 limit/base >3 >20 >30 limit/base >25	3 44 <1 577 1417 855 1064 2796 <u>current</u> 15 1 2 2 ▲ 2.7 <u>current</u> 0.3 9.9 23.1	      history1    history1  history1	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> <li></li></ul>

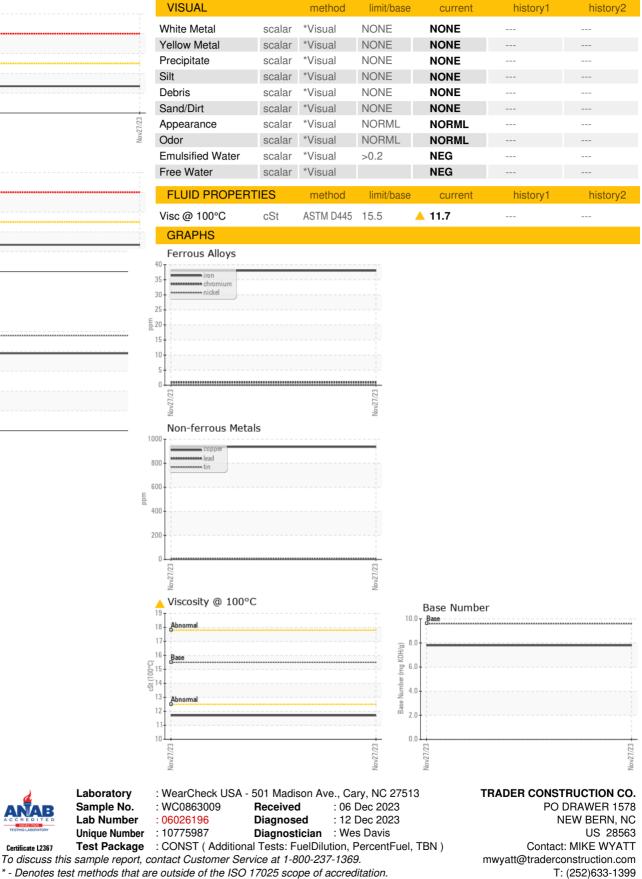




### **OIL ANALYSIS REPORT**







Certificate L2367

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Laboratory

Sample No.

Lab Number

Contact/Location: MIKE WYATT - TRANEW

F: (252)638-4871