

# **OIL ANALYSIS REPORT**



Machine Id

### 835 Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- QTS)

# 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.

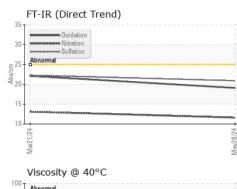
## Fluid Condition

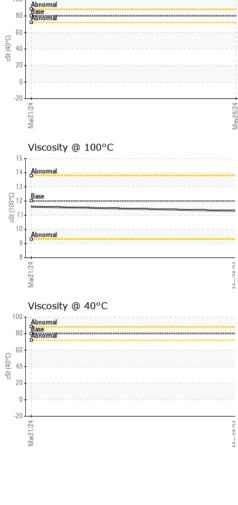
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

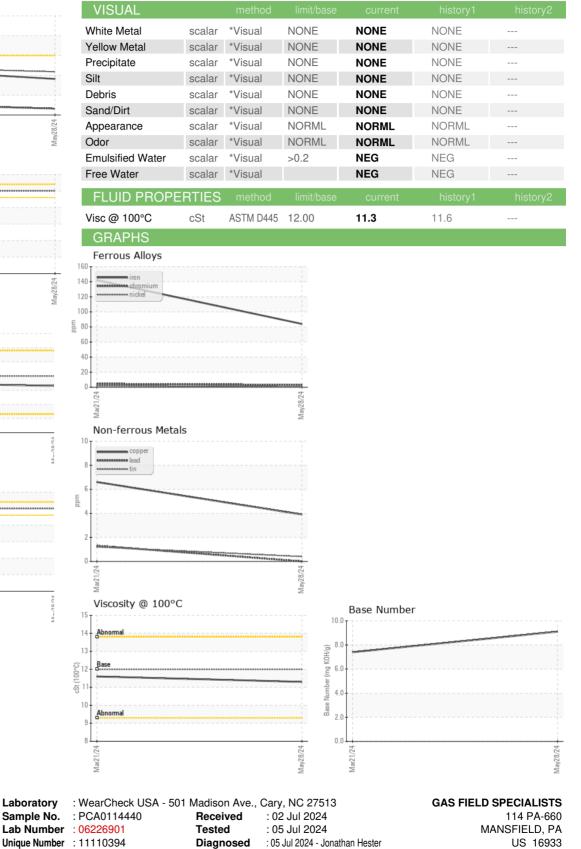
	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0114440	PCA0114404	
Sample Date		Client Info		28 May 2024	21 Mar 2024	
Machine Age	mls	Client Info		116813	109557	
Oil Age	mls	Client Info		7250	5000	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	ABNORMAL	
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 METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	84	<b>1</b> 42	
Chromium	ppm	ASTM D5185m	>20	3	4	
Nickel	ppm	ASTM D5185m	>4	<1	2	
Titanium	ppm	ASTM D5185m		0	<1	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum	ppm	ASTM D5185m	>20	10	13	
Lead	ppm	ASTM D5185m	>40	0	1	
Copper	ppm	ASTM D5185m	>330	4	7	
Tin	ppm	ASTM D5185m	>15	<1	1	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	1	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 6	history1 14	history2
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	2	6	14	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50	6 0	14 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	6 0 55	14 0 49	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	6 0 55 1	14 0 49 2	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	6 0 55 1 920	14 0 49 2 718	
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	6 0 55 1 920 1085	14 0 49 2 718 1153	   
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 50 950 1050 995	6 0 55 1 920 1085 1087	14 0 49 2 718 1153 1016	
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	6 0 55 1 920 1085 1087 1237	14 0 49 2 718 1153 1016 1123	
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	2 0 50 950 1050 995 1180 2600	6 0 55 1 920 1085 1087 1237 3517	14 0 49 2 718 1153 1016 1123 3233	
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	2 0 50 950 1050 995 1180 2600	6 0 55 1 920 1085 1087 1237 3517 current	14 0 49 2 718 1153 1016 1123 3233 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 <b>method</b>	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >25	6 0 55 1 920 1085 1087 1237 3517 current 12	14 0 49 2 718 1153 1016 1123 3233 history1 11	     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	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 <b>limit/base</b> >25	6 0 55 1 920 1085 1087 1237 3517 current 12 3	14 0 49 2 718 1153 1016 1123 3233 history1 11 2	      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 0 950 1050 995 1180 2600 <b>imit/base</b> >25 >20	6 0 55 1 920 1085 1087 1237 3517 current 12 3 1	14 0 49 2 718 1153 1016 1123 3233 history1 11 2 3	      history2  
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 ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 -20 <b>limit/base</b>	6 0 55 1 920 1085 1087 1237 3517 current 12 3 1 1 current	14 0 49 2 718 1153 1016 1123 3233 history1 11 2 3 3 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 TS ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b>	6 0 55 1 920 1085 1087 1237 3517 current 12 3 1 1 2 3 1 1 2 3 1	14 0 49 2 718 1153 1016 1123 3233 history1 11 2 3 3 history1 1.1	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc 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> >25 >20 <i>imit/base</i> >3 >20	6 0 55 1 920 1085 1087 1237 3517 <i>current</i> 12 3 1 1 <i>current</i> 1.2 1.2 11.6	14 0 49 2 718 1153 1016 1123 3233 history1 11 2 3 history1 1.1 1.1 13.1	      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 <b>imit/base</b> >25 <b>imit/base</b> >3 >20	6 0 55 1 920 1085 1087 1237 3517 current 12 3 1 1 current 1.2 1.2 1.2 1.2	14 0 49 2 718 1153 1016 1123 3233 history1 11 2 3 history1 1.1 1.1 13.1 22.3	      history2   history2  history2



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Test Package : FLEET (Additional Tests: KV40) Certificate 12367

To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

Report Id: GASMAN [WUSCAR] 06226901 (Generated: 07/08/2024 08:13:29) Rev: 1

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