

OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id **759M** Component **Diesel Engine** Fluid

PETRO CANADA DURON SHP 15W40 (36 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

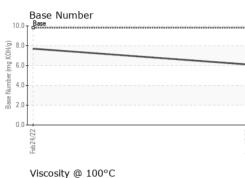
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

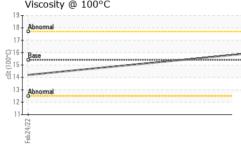
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0085033	GFL0018456	
Sample Date		Client Info		17 Aug 2023	24 Feb 2022	
Machine Age	hrs	Client Info		17618	14144	
Oil Age	hrs	Client Info		17618	0	
Oil Changed		Client Info		Changed	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>75	44	35	
Chromium	ppm	ASTM D5185m	>5	2	2	
Nickel	ppm	ASTM D5185m	>4	2 <1	0	
Titanium	ppm	ASTM D5185m	>2	<1	0	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>15	10	4	
Lead	ppm	ASTM D5185m	>25	11	<1	
Copper	ppm	ASTM D5185m	>100	3	1	
Tin	ppm	ASTM D5185m	>4	1	<1	
Antimony	ppm	ASTM D5185m	21		0	
Vanadium	ppm	ASTM D5185m		<1	<1	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
	maa			current	history1	history2
Boron	ppm mag	ASTM D5185m	limit/base 0 0			· · · · ·
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	current 48	history1 4 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	current 48 0	history1 4	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 60	current 48 0 74	history1 4 0 62	
Boron Barium Molybdenum	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	current 48 0 74 <1	history1 4 0 62 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	current 48 0 74 <1 1051	history1 4 0 62 <1 1037	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	current 48 0 74 <1 1051 1370	history1 4 0 62 <1 1037 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	0 0 60 0 1010 1070 1150	current 48 0 74 <1 1051 1370 1152	history1 4 0 62 <1 1037 1153 1093	
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	0 0 60 0 1010 1070 1150 1270	current 48 0 74 <1 1051 1370 1152 1443	history1 4 0 62 <1 1037 1153 1093 1400	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	Current 48 0 74 <1 1051 1370 1152 1443 3723	history1 4 0 62 <1 1037 1153 1093 1400 2600	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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	0 0 60 1010 1070 1150 1270 2060	current 48 0 74 <1 1051 1370 1152 1443 3723 current 11	history1 4 0 62 <1 1037 1153 1093 1400 2600 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN 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 ASTM D5185m	0 0 60 1010 1070 1150 1270 2060	current 48 0 74 <1 1051 1370 1152 1443 3723 current	history1 4 0 62 <1 1037 1153 1093 1400 2600 history1 6	 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 method ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 limit/base	current 48 0 74 <1 1051 1370 1152 1443 3723 current 11 22	history1 4 0 62 <1 1037 1153 1093 1400 2600 history1 6 9	 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	0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20	current 48 0 74 <1 1051 1370 1152 1443 3723 current 11 22 1 22 1 current	history1 4 0 62 <1 1037 1153 1093 1400 2600 history1 6 9 2	 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	0 0 0 1010 1070 1150 1270 2060 Imit/base >25	current 48 0 74 <1 1051 1370 1152 1443 3723 current 11 22 1 current 0 0.3	history1 4 0 62 <1 1037 1153 1093 1400 2600 history1 6 9 2 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	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	current 48 0 74 <1 1051 1370 1152 1443 3723 current 11 22 1 22 1 current	history1 4 0 62 <1 1037 1153 1093 1400 2600 history1 6 9 2 history1 0.9	 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	0 0 0 1010 1070 1150 1270 2060 <i>limit/base</i> >25 >20 <i>limit/base</i> >20	current 48 0 74 <1 1051 1370 1152 1443 3723 current 11 22 1 current 0.3 12.4	history1 4 0 62 <1 1037 1153 1093 1400 2600 history1 6 9 2 history1 0.9 12.6	 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	0 0 0 1010 1070 1150 1270 2060 2060 225 20 225 20 imit/base >6 >20 20	current 48 0 74 <1 1051 1370 1152 1443 3723 current 11 22 1 0.3 12.4 27.6	history1 4 0 62 <1 1037 1153 1093 1400 2600 history1 6 9 2 history1 0.9 12.6 24.1 history1	 history2 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 ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844	0 0 0 1010 1070 1150 2260 2060 225 220 220 imit/base >6 >20 >30 imit/base	current 48 0 74 <1 1051 1370 1152 1443 3723 current 11 22 1 current 0.3 12.4 27.6	history1 4 0 62 <1 1037 1153 1093 1400 2600 history1 6 9 2 history1 0.9 12.6 24.1	 history2 history2 history2 history2

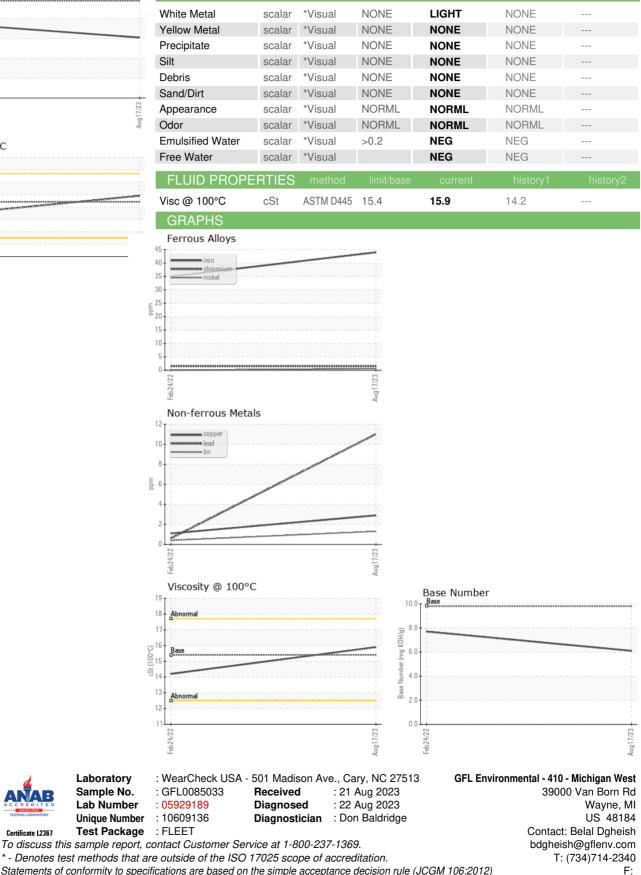


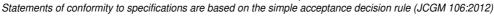
OIL ANALYSIS REPORT

VISUAL









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