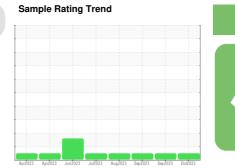


OIL ANALYSIS REPORT





NORMAL

FORD 611 (S/N 1FM5K8AR0HGC56634)

Gasoline Engine

PETRO CANADA SUPREME 5W20 MOTOR OIL (6 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.

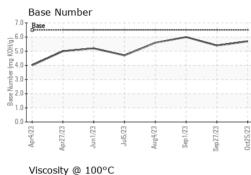
Fluid Condition

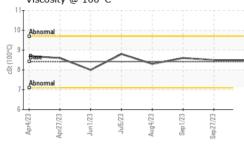
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0105345	PCA0105364	PCA0100396
Sample Date		Client Info		25 Oct 2023	27 Sep 2023	01 Sep 2023
Machine Age	mls	Client Info		102961	101028	99322
Oil Age	mls	Client Info		1933	1706	1288
Oil Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	3	3	3
Chromium	ppm	ASTM D5185m	>20	3 <1	1	0
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m	20	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	2	4	<1
Lead	ppm	ASTM D5185m	>50	- <1	0	<1
Copper	ppm	ASTM D5185m		2	1	<1
Tin	ppm	ASTM D5185m	>100	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm					
Boron Barium	ppm ppm	ASTM D5185m	183	62	50	70
Barium	ppm	ASTM D5185m ASTM D5185m	183 0	62 9	50 0	70 0
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36	62 9 69	50 0 67	70
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m	183 0 36	62 9 69 <1	50 0 67 0	70 0 67
Barium Molybdenum	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36 0	62 9 69	50 0 67	70 0 67 <1 584
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36 0 417	62 9 69 <1 524	50 0 67 0 531	70 0 67 <1
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36 0 417 1318	62 9 69 <1 524 1243	50 0 67 0 531 1172	70 0 67 <1 584 1297
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773	62 9 69 <1 524 1243 730	50 0 67 0 531 1172 673	70 0 67 <1 584 1297 742
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	183 0 36 0 417 1318 773 845	62 9 69 <1 524 1243 730 833	50 0 67 0 531 1172 673 847	70 0 67 <1 584 1297 742 920
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	183 0 36 0 417 1318 773 845 2690	62 9 69 <1 524 1243 730 833 3064	50 0 67 0 531 1172 673 847 3201	70 0 67 <1 584 1297 742 920 3077
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	183 0 36 0 417 1318 773 845 2690	62 9 69 <1 524 1243 730 833 3064 current	50 0 67 0 531 1172 673 847 3201 history1	70 0 67 <1 584 1297 742 920 3077 history2
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 ASTM D5185m	183 0 36 0 417 1318 773 845 2690 limit/base >30	62 9 69 <1 524 1243 730 833 3064 current 21	50 0 67 0 531 1172 673 847 3201 history1 20	70 0 67 <1 584 1297 742 920 3077 history2 20
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 ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773 845 2690 limit/base >30 >400	62 9 69 <1 524 1243 730 833 3064 <u>current</u> 21 2	50 0 67 0 531 1172 673 847 3201 history1 20 5	70 0 67 <1 584 1297 742 920 3077 history2 20 4
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	183 0 36 0 417 1318 773 845 2690 limit/base >30 >400 >20	62 9 69 <1 524 1243 730 833 3064 <u>current</u> 21 2 2 2	50 0 67 0 531 1172 673 847 3201 history1 20 5 1	70 0 67 <1 584 1297 742 920 3077 history2 20 4 2
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	183 0 36 0 417 1318 773 845 2690 limit/base >30 >400 >20	62 9 69 <1 524 1243 730 833 3064 current 21 2 2 2 2	50 0 67 0 531 1172 673 847 3201 history1 20 5 1 1 history1	70 0 67 <1 584 1297 742 920 3077 history2 20 4 2 2 4 2 2 history2
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	ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773 845 2690 limit/base >30 >400 >20	62 9 69 <1 524 1243 730 833 3064 <u>current</u> 21 2 2 2 2 <u>current</u> 0.1	50 0 67 0 531 1172 673 847 3201 history1 20 5 1 1 history1 0	70 0 67 <1 584 1297 742 920 3077 history2 20 4 20 4 2 20 4 2 1 history2 0
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	183 0 36 0 417 1318 773 845 2690 <i>imit/base</i> >30 >400 >20 <i>imit/base</i>	62 9 69 <1 524 1243 730 833 3064 <u>current</u> 21 2 2 2 2 <u>current</u> 0.1 7.7	50 0 67 0 531 1172 673 847 3201 history1 20 5 1 20 5 1 history1 0 7.6	70 0 67 <1 584 1297 742 920 3077 history2 20 4 20 4 2 20 4 2 20 4 5 20 4 2 20 4 2 20 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 ppm ppm	ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773 845 2690 Imit/base >30 >400 >20 Imit/base >20 S	62 9 69 <1 524 1243 730 833 3064 current 21 2 2 2 current 0.1 7.7 18.3	50 0 67 0 531 1172 673 847 3201 history1 20 5 1 1 20 5 1 1 history1 0 7.6 17.8	70 0 67 <1 584 1297 742 920 3077 history2 20 4 20 4 2 2 history2 0 7.9 17.3



OIL ANALYSIS REPORT







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

Certificate L2367

Laboratory

Sample No.

Lab Number