

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 946021-260304

Component Transmission (Auto)

Fluid PETRO CANADA DuraDrive HD Synthetic 668 (--- 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 fluid.

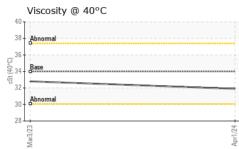
Fluid Condition

The condition of the fluid is acceptable for the time in service.

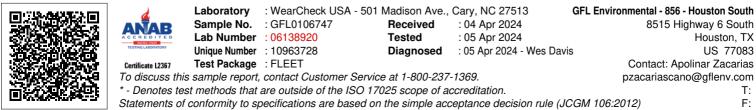
SAMPLE INFORM	NOITAN	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0106747	GFL0073673	
Sample Date		Client Info		01 Apr 2024	03 Mar 2023	
Machine Age	hrs	Client Info		89722	152695	
Oil Age	hrs	Client Info		1200	0	
Oil Changed		Client Info		Changed	N/A	
Sample Status				NORMAL	ABNORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>160	31	36	
Chromium	ppm	ASTM D5185m	>5	<1	0	
Nickel	ppm	ASTM D5185m	>5	<1	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>5	<1	0	
Aluminum	ppm	ASTM D5185m	>50	9	9	
Lead	ppm	ASTM D5185m	>50	3	3	
Copper	ppm	ASTM D5185m	>225	11	15	
Tin	ppm		>10	2	1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	<1	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		76	40	
Barium	ppm	ASTM D5185m		0	0	
Molybdenum	ppm	ASTM D5185m		2	3	
	ppm ppm	ASTM D5185m ASTM D5185m		2 <1		
Molybdenum					3	
Molybdenum Manganese	ppm	ASTM D5185m		<1	3 <1	
Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m		<1 10	3 <1 24	
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		<1 10 134	3 <1 24 162	
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 10 134 244	3 <1 24 162 247	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 10 134 244 27	3 <1 24 162 247 61	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 10 134 244 27 1873	3 <1 24 162 247 61 2156	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method		<1 10 134 244 27 1873 current	3 <1 24 162 247 61 2156 history1	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>20	<1 10 134 244 27 1873 current 9	3 <1 24 162 247 61 2156 history1 5	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20	<1 10 134 244 27 1873 current 9 2	3 <1 24 162 247 61 2156 history1 5 <1	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	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	>20 >20	<1 10 134 244 27 1873 <u>current</u> 9 2 2 2	3 <1 24 162 247 61 2156 history1 5 <1 2	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 limit/base	<1 10 134 244 27 1873 <u>current</u> 9 2 2 2 2	3 <1 24 162 247 61 2156 history1 5 <1 2 history1	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	>20 >20 limit/base NONE	<1 10 134 244 27 1873 current 9 2 2 2 2 current NONE	3 <1 24 162 247 61 2156 history1 5 <1 2 history1 NONE	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>20 >20 limit/base NONE NONE	<1 10 134 244 27 1873 current 9 2 2 2 current NONE NONE	3 <1 24 162 247 61 2156 history1 5 <1 2 history1 NONE NONE	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Visual *Visual	>20 >20 limit/base NONE NONE NONE	<1 10 134 244 27 1873 current 9 2 2 2 current NONE NONE NONE NONE	3 <1 24 162 247 61 2156 <u>history1</u> 5 <1 2 <u>history1</u> NONE NONE NONE	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Yisual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE	<1 10 134 244 27 1873 current 9 2 2 2 current NONE NONE NONE NONE NONE NONE	3 <1 24 162 247 61 2156 history1 5 <1 2 history1 NONE NONE NONE NONE NONE NONE	 history2 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE	<1 10 134 244 27 1873 Current 9 2 2 2 Current NONE NONE NONE NONE NONE NONE NONE NON	3 <1 24 162 247 61 2156 history1 5 <1 2 history1 NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	 history2 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	<1 10 134 244 27 1873 current 9 2 2 2 current NONE NONE NONE NONE NONE NONE NONE NON	3 <1 24 162 247 61 2156 history1 5 <1 2 history1 NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE	<1 10 134 244 27 1873 current 9 2 2 2 current NONE NONE NONE NONE NONE NONE NONE NON	3 <1 24 162 247 61 2156 history1 5 <1 2 history1 NONE NONE NONE NONE NONE NONE NONE NONE MODER NONE MODER NONE MODER NONE MODER NONE	 history2 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Silicon Sodium Potassium VISUAL VISUAL Vhite Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	<1 10 134 244 27 1873 current 9 2 2 2 current NONE NONE NONE NONE NONE NONE NONE NON	3 <1 24 162 247 61 2156 history1 5 <1 2 history1 NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	 history2 history2 history2



OIL ANALYSIS REPORT



Visc @ 40°C	cSt	ASTM D445		31.9	32.8	
SAMPLE I	MAGES	method	limit/base	current	history1	history
Color				no image		no image
Bottom				no image		no image
GRAPHS			L			
Ferrous Alloy	′S					
iron	1					
5 - chromiun 0 -	1					
5						
0 -						
5						
o						
5 -						
0 2			24			
Mar3/23			Apr1/24			
Non-ferrous	Metals					
6 copper						
4 - measurement lead						
2			_			
8						
6						
4-						
2						
Mar3/23			Apr1/24			
Viscosity @ 4	10°C					
9 T						
Abnormal						
6-						
5						
3						
2						
Abnormal						
9			-			
Mar3/23			Apr1/24 -			
×			Ar			



Submitted By: Apolinar Zacarias Page 2 of 2