

# **OIL ANALYSIS REPORT**

### Sample Rating Trend





Component

Transmission (Auto)

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.

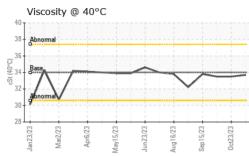
# Fluid Condition

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

Sample NumberClient InfoGFL01013Sample DateClient Info05 Dec 20Machine AgehrsClient Info19992Oil AgehrsClient Info257Oil ChangedClient InfoNot ChanSample StatusImit/basecurreWaterWC Method>0.1NEGWearWC Method>0.1NEGIronppmASTM D5185m>16074ChromiumppmASTM D5185m>50NickelppmASTM D5185m>50SilverppmASTM D5185m>50AluminumppmASTM D5185m>505LeadppmASTM D5185m>505LeadppmASTM D5185m>50<1CopperppmASTM D5185m>10<1VanadiumppmASTM D5185m>10<1VanadiumppmASTM D5185m0<1CopperppmASTM D5185m0<1CopperppmASTM D5185m0<1CopperppmASTM D5185m0<1VanadiumppmASTM D5185m0<1VanadiumppmASTM D5185m0<1ADDITIVESmethodlimit/basecurrer	023     23 Oct 2023     10 Oct 2023       19735     19616       1968     1849       ngd     Changed     Not Changd       NORMAL     NORMAL       ent     history1     history2       NEG     NEG     NEG
Sample DateClient Info05 Dec 20Machine AgehrsClient Info19992Oil AgehrsClient Info257Oil ChangedClient InfoNot ChanSample StatusImit/basecurreCONTAMINATIONmethodlimit/basecurreWaterWC Method>0.1NEGWaterWC Method>0.1NEGIronppmASTM D5185m>16074ChromiumppmASTM D5185m>5<1	023     23 Oct 2023     10 Oct 2023       19735     19616       1968     1849       ngd     Changed     Not Changd       NORMAL     NORMAL       not     history1     history2       NEG     NEG       ent     history1     history2       69     70       0     <1
Machine AgehrsClient Info19992Oil AgehrsClient Info257Oil ChangedClient InfoNot ChanSample StatusClient InfoNORMALCONTAMINATIONmethodlimit/basecurreWaterWC Method>0.1NEGWEAR METALSmethodlimit/basecurreIronppmASTM D5185m>16074ChromiumppmASTM D5185m>5<1NickelppmASTM D5185m>50SilverppmASTM D5185m>505LeadppmASTM D5185m>50<1CopperppmASTM D5185m>2256TinppmASTM D5185m>10<1VanadiumppmASTM D5185m>10<1VanadiumppmASTM D5185m>0<1ParadiumppmASTM D5185m>0<1OASTM D5185m>0<1<1NordppmASTM D5185m>0<1OASTM D5185m>0<1<1VanadiumppmASTM D5185m>0<1VanadiumppmASTM D5185m>0<1VanadiumppmASTM D5185m>0<1VanadiumppmASTM D5185m>0<1VanadiumppmASTM D5185m>0<1VanadiumppmASTM D5185m>0<1VanadiumppmASTM	19735     19616       1968     1849       ngd     Changed     Not Changd       NORMAL     NORMAL       ent     history1     history2       NEG     NEG       ent     history1     history2       69     70       0     0        0     0     0       0     0     0       0     0     0       4     0     0
Oil AgehrsClient Info257Oil ChangedClient InfoNot ChanSample StatusClient InfoNORMALCONTAMINATIONmethodlimit/basecurreWaterWC Method>0.1NEGWEAR METALSmethodlimit/basecurreIronppmASTM D5185m>16074ChromiumppmASTM D5185m>5<1NickelppmASTM D5185m>50SilverppmASTM D5185m>50SilverppmASTM D5185m>505LeadppmASTM D5185m>50<1CopperppmASTM D5185m>2256TinppmASTM D5185m>10<1VanadiumppmASTM D5185m>10<1VanadiumppmASTM D5185m>00	1968     1849       ngd     Changed     Not Changd       NORMAL     NORMAL       ent     history1     history2       NEG     NEG       ent     history1     history2       69     70       0     0       0     <1       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0
Oil ChangedClient InfoNot Chan NORMALSample StatusImage: Client InfoNORMALCONTAMINATIONmethodlimit/basecurreWaterWC Method>0.1NEGWEAR METALSmethodlimit/basecurreIronppmASTM D5185m>16074ChromiumppmASTM D5185m>5<1NickelppmASTM D5185m>50TitaniumppmASTM D5185m>50SilverppmASTM D5185m>505LeadppmASTM D5185m>50<1CopperppmASTM D5185m>2256TinppmASTM D5185m>10<1VanadiumppmASTM D5185m>10<1VanadiumppmASTM D5185m>00PartinianppmASTM D5185m>0<1OcadmiumppmASTM D5185m>0	ngdChangedNot ChangedNORMALNORMALNORMALNORMALnistory1history2NEGNEGenthistory1history1history269700000000000000000000000000000
Sample Statusmethodlimit/basecurreWaterWC Method>0.1NEGWaterWC Method>0.1NEGWEAR METALSmethodlimit/basecurreIronppmASTM D5185m>16074ChromiumppmASTM D5185m>5<1NickelppmASTM D5185m>50TitaniumppmASTM D5185m>50SilverppmASTM D5185m>505LeadppmASTM D5185m>50<1CopperppmASTM D5185m>2256TinppmASTM D5185m>10<1VanadiumppmASTM D5185m>10<1VanadiumppmASTM D5185m00	NORMALNORMALhistory1history2NEGNEGnethistory1history1history2697000000000000000000000000000
CONTAMINATIONmethodlimit/basecurrerWaterWC Method>0.1NEGWEAR METALSmethodlimit/basecurrerIronppmASTM D5185m>16074ChromiumppmASTM D5185m>5<1NickelppmASTM D5185m>50TitaniumppmASTM D5185m>50SilverppmASTM D5185m>505LeadppmASTM D5185m>50<1CopperppmASTM D5185m>2256TinppmASTM D5185m>10<1VanadiumppmASTM D5185m00CadmiumppmASTM D5185m00	ent history1 history2 NEG NEG ent history1 history2 69 70 0 0 0 <1 0 0 0 0 0 0 0 0 0 0 4 0
WaterWC Method>0.1NEGWEAR METALSmethodlimit/basecurredIronppmASTM D5185m>16074ChromiumppmASTM D5185m>5<1NickelppmASTM D5185m>50TitaniumppmASTM D5185m>50SilverppmASTM D5185m>50AluminumppmASTM D5185m>505LeadppmASTM D5185m>50<1CopperppmASTM D5185m>2256TinppmASTM D5185m>10<1VanadiumppmASTM D5185m00CadmiumppmASTM D5185m00	NEG     NEG       history1     history2       69     70       0     0       0     <1       0     0       0     0       0     0       4     0
WEAR METALSmethodlimit/basecurredIronppmASTM D5185m>16074ChromiumppmASTM D5185m>5<1NickelppmASTM D5185m>50TitaniumppmASTM D5185m>50SilverppmASTM D5185m>50AluminumppmASTM D5185m>505LeadppmASTM D5185m>50<1CopperppmASTM D5185m>2256TinppmASTM D5185m>10<1VanadiumppmASTM D5185m00CadmiumppmASTM D5185m00	history1     history2       69     70       0     0       0     <1       0     0       0     0       4     0
Iron     ppm     ASTM D5185m     >160     74       Chromium     ppm     ASTM D5185m     >5     <1       Nickel     ppm     ASTM D5185m     >5     0       Titanium     ppm     ASTM D5185m     >5     0       Silver     ppm     ASTM D5185m     >5     0       Aluminum     ppm     ASTM D5185m     >50     5       Lead     ppm     ASTM D5185m     >50     <1       Copper     ppm     ASTM D5185m     >22.5     6       Tin     ppm     ASTM D5185m     >10     <1       Vanadium     ppm     ASTM D5185m     0     0       Cadmium     ppm     ASTM D5185m     0     0	69 70   0 0   0 <1   0 0   0 0   0 0   4 0
Chromium     ppm     ASTM D5185m     >5     <1	0     0       0     <1       0     0       0     0       4     0
Nickel     ppm     ASTM D5185m     >5     0       Titanium     ppm     ASTM D5185m     >5     0       Silver     ppm     ASTM D5185m     >5     0       Aluminum     ppm     ASTM D5185m     >50     5       Lead     ppm     ASTM D5185m     >50     <1	0 <1 0 0 0 0 4 0
Titanium     ppm     ASTM D5185m     0       Silver     ppm     ASTM D5185m<>5     0       Aluminum     ppm     ASTM D5185m<>50     5       Lead     ppm     ASTM D5185m<>50     <1	0 0 0 0 4 0
Silver     ppm     ASTM D5185m     >5     0       Aluminum     ppm     ASTM D5185m     >50     5       Lead     ppm     ASTM D5185m     >50     <1	0 0 4 0
Aluminum     ppm     ASTM D5185m     >50     5       Lead     ppm     ASTM D5185m     >50     <1	4 0
Lead     ppm     ASTM D5185m     >50     <1       Copper     ppm     ASTM D5185m     >225     6       Tin     ppm     ASTM D5185m     >10     <1       Vanadium     ppm     ASTM D5185m     0     <1       Cadmium     ppm     ASTM D5185m     0     <1	
Copper     ppm     ASTM D5185m     >225     6       Tin     ppm     ASTM D5185m     >10     <1	0 1
Tin     ppm     ASTM D5185m     >10     <1       Vanadium     ppm     ASTM D5185m     0       Cadmium     ppm     ASTM D5185m     0	
Tin     ppm     ASTM D5185m     >10     <1       Vanadium     ppm     ASTM D5185m     0       Cadmium     ppm     ASTM D5185m     0	5 5
Cadmium ppm ASTM D5185m 0	<1 <1
Cadmium ppm ASTM D5185m 0	0 0
	0 0
	ent history1 history2
Boron ppm ASTM D5185m 66	67 66
Barium ppm ASTM D5185m 0	0 1
Molybdenum ppm ASTM D5185m <1	0 <1
Manganese ppm ASTM D5185m <1	<1 <1
Magnesium ppm ASTM D5185m 3	1 1
Calcium ppm ASTM D5185m 124	124 117
Phosphorus ppm ASTM D5185m 218	217 208
Zinc ppm ASTM D5185m 3	6 5
Sulfur     ppm     ASTM D5185m     1773	1729 1836
CONTAMINANTS method limit/base curre	ent history1 history2
Silicon ppm ASTM D5185m >20 7	6 7
Sodium ppm ASTM D5185m 1	2 0
Potassium ppm ASTM D5185m >20 1	0 1
VISUAL method limit/base curre	ent history1 history2
White Metal scalar *Visual NONE NONE	NONE NONE
Yellow Metal scalar *Visual NONE NONE	NONE NONE
Precipitate scalar *Visual NONE NONE	NONE NONE
Silt scalar *Visual NONE NONE	NONE NONE
Debris scalar *Visual NONE NONE	NONE LIGHT
Sand/Dirt scalar *Visual NONE NONE	NONE NONE
Appearance scalar *Visual NORML NORM	
Odor scalar *Visual NORML NORM	
Emulsified Water scalar *Visual >0.1 NEG	NEG NEG
Free Water scalar *Visual NEG	NEG NEG
	Submitted By: JOSHUA TINKE



# **OIL ANALYSIS REPORT**



с		FLUID PROP	ERTIES	method	limit/base	current	history1	history2
		Visc @ 40°C	cSt	ASTM D445	34	33.7	33.5	33.5
		SAMPLE IMA	GES	method	limit/base	current	history1	history2
23	23	Color				no image	no image	no image
May15/23 Jun23/23 Aug16/23	Sep 15/23 0ct23/23	Bottom				no image	no image	no image
		GRAPHS						
	1 1 udd (1-0-0)	Non-ferrous Met	May15/23	Aug 16/23 - Aug 16	0ct33/23 0ct33/23 0ct23/23 0ct			
Certificate L2367 To discuss this sam	mple No. <b>Number</b> que Number <b>st Package</b> apple report, co thods that are	: WearCheck USA - : GFL0101262 : 06026932 : 10776723 : FLEET ontact Customer Ser e outside of the ISO ications are based on	Received Diagnose Diagnost vice at 1-8 17025 sco	l : 06 [ ed : 08 [ ician : Dor 00-237-1369 pe of accred	Dec 2023 Dec 2023 n Baldridge 0. <i>Litation</i> .	Cor	S ntact: TECHNICI wcgflder	Creek Parkway tockbridge, GA US 30281

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