

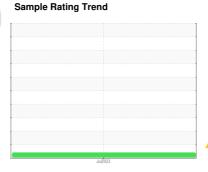
OIL ANALYSIS REPORT



G.LOPES CONSTRUCTION INC./Off-Road **E2703**

Component **Swing Drive**

PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

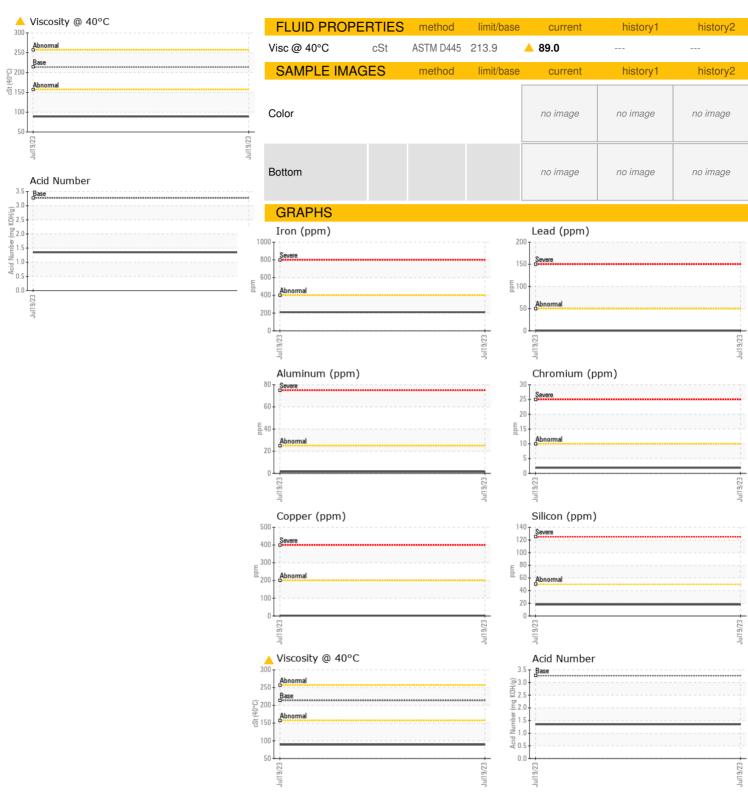
Fluid Condition

The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

Description	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Date	Sample Number		Client Info		PCA0098424		
Machine Age hrs Client Info 1425			Client Info		19 Jul 2023		
Oil Changed		hrs					
Oil Changed Client Info N/A					_		
MEAR METALS		1110			_		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >400 210 Chromium ppm ASTM D5185m >10 2 Nickel ppm ASTM D5185m >10 0 Silver ppm ASTM D5185m >1 -1 Aluminum ppm ASTM D5185m >25 2 Aluminum ppm ASTM D5185m >20 2 Aluminum ppm ASTM D5185m >20 2 Copper ppm ASTM D5185m >20 2 Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Barium ppm ASTM D5185m 0 3			Olioni iilio				
Note Property ASTM D5185m Section Property ASTM D5185m Section Property ASTM D5185m Section Property ASTM D5185m Section Property Prope	·				ATTENTION		
Description	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>400	210		
Titanium	Chromium	ppm	ASTM D5185m	>10	2		
Silver	Nickel	ppm	ASTM D5185m	>10	0		
Aluminum	Titanium	ppm	ASTM D5185m		<1		
Lead	Silver	ppm	ASTM D5185m		0		
Copper ppm ASTM D5185m >200 2 Tin ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 0 Barium ppm ASTM D5185m 0 11 Molybdenum ppm ASTM D5185m 0 3 Magnesium ppm ASTM D5185m 0 3 Magnesium ppm ASTM D5185m 9 15 Magnesium ppm ASTM D5185m 9 15 Calcium ppm ASTM D5185m 1099 948 Zinc ppm ASTM D5185m 1099 115 <	Aluminum	ppm	ASTM D5185m	>25	2		
Tin	Lead	ppm	ASTM D5185m	>50	<1		
Trin	Copper	• • • • • • • • • • • • • • • • • • • •	ASTM D5185m	>200	2		
Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 0 Barium ppm ASTM D5185m 0 11 Molybdenum ppm ASTM D5185m 0 3 Manganese ppm ASTM D5185m 0 3 Magnesium ppm ASTM D5185m 9 15 Calcium ppm ASTM D5185m 1099 948 Phosphorus ppm ASTM D5185m 1099 948 Sulfur ppm ASTM D5185m 1099 948 Sulfur ppm ASTM D5185m 7086 11576 CONTAMINANTS method limit/base current	• •	ppm	ASTM D5185m	>10	0		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 0 Barium ppm ASTM D5185m 0 3 Molybdenum ppm ASTM D5185m 0 3 Magnesium ppm ASTM D5185m 0 3 Calcium ppm ASTM D5185m 9 15 Phosphorus ppm ASTM D5185m 1099 948 Zinc ppm ASTM D5185m 1099 948 Zinc ppm ASTM D5185m 1245 1151 CONTAMINANTS method limit/base current history1 history2 <	Vanadium	• • • • • • • • • • • • • • • • • • • •					
Boron ppm ASTM D5185m 2 0	Cadmium		ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 3 Manganese ppm ASTM D5185m 0 3 Magnesium ppm ASTM D5185m 9 15 Calcium ppm ASTM D5185m 3114 3566 Phosphorus ppm ASTM D5185m 1099 948 Zinc ppm ASTM D5185m 1099 948 Zinc ppm ASTM D5185m 1245 1151 Sulfur ppm ASTM D5185m 7086 11576 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 18 Solium ppm ASTM D5185m >0 0 FLUID DEGRADATION method <td>Boron</td> <td>ppm</td> <td>ASTM D5185m</td> <td>2</td> <td>0</td> <td></td> <td></td>	Boron	ppm	ASTM D5185m	2	0		
Manganese ppm ASTM D5185m 0 3 Magnesium ppm ASTM D5185m 9 15 Calcium ppm ASTM D5185m 3114 3566 Phosphorus ppm ASTM D5185m 1099 948 Zinc ppm ASTM D5185m 1245 1151 Sulfur ppm ASTM D5185m 7086 11576 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 18 Sodium ppm ASTM D5185m >20 6 Potassium ppm ASTM D5185m >20 6 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOHg A	Barium	ppm	ASTM D5185m	0	11		
Magnesium ppm ASTM D5185m 9 15 Calcium ppm ASTM D5185m 3114 3566 Phosphorus ppm ASTM D5185m 1099 948 Zinc ppm ASTM D5185m 1245 1151 Sulfur ppm ASTM D5185m 7086 11576 Sulfur ppm ASTM D5185m 7086 11576 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 18 Sodium ppm ASTM D5185m >20 6 Potassium ppm ASTM D5185m >20 6 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOHg <	Molybdenum	ppm	ASTM D5185m	0	3		
Calcium ppm ASTM D5185m 3114 3566 Phosphorus ppm ASTM D5185m 1099 948 Zinc ppm ASTM D5185m 1245 1151 Sulfur ppm ASTM D5185m 7086 11576 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 18 Sodium ppm ASTM D5185m >0 Potassium ppm ASTM D5185m >20 6 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 3.27 1.35 VISUAL method limit/base current history1 history2 White Metal scalar *Visual	Manganese	ppm	ASTM D5185m	0	3		
Calcium ppm ASTM D5185m 3114 3566 Phosphorus ppm ASTM D5185m 1099 948 Zinc ppm ASTM D5185m 1245 1151 Sulfur ppm ASTM D5185m 7086 11576 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 18 Sodium ppm ASTM D5185m >0 Potassium ppm ASTM D5185m >20 6 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 3.27 1.35 VISUAL method limit/base current history1 history2 White Metal scalar *Visual	Magnesium	ppm	ASTM D5185m	9	15		
Phosphorus ppm ASTM D5185m 1099 948 Zinc ppm ASTM D5185m 1245 1151 Sulfur ppm ASTM D5185m 7086 11576 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 18 Sodium ppm ASTM D5185m >50 6 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOHg ASTM D8045 3.27 1.35 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silt scalar *Visual	Calcium	ppm	ASTM D5185m	3114	3566		
Zinc ppm ASTM D5185m 1245 1151 Sulfur ppm ASTM D5185m 7086 11576 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 18 Sodium ppm ASTM D5185m >50 6 FUID DEGRADATION method limit/base limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 3.27 1.35 VISUAL method limit/base current history1 history2 VISUAL method limit/base current history1 history2 VISUAL NONE LIGHT Yellow Metal scalar *Visual NONE NONE Precipitate scalar	Phosphorus		ASTM D5185m	1099	948		
Sulfur ppm ASTM D5185m 7086 11576 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 18 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 6 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOHg ASTM D8045 3.27 1.35 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE	Zinc	• • • • • • • • • • • • • • • • • • • •		1245	1151		
Silicon ppm ASTM D5185m >50 18 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 6 FLUID DEGRADATION method limit/base current limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 3.27 1.35 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE LIGHT Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance	Sulfur				-		
Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 6 FLUID DEGRADATION method limit/base current limit/base current history1 history2 ASTM D8045 3.27 1.35 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE LIGHT Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 6 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 3.27 1.35 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE LIGHT Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Godor scalar *Visual NORML NORML Emulsified Water <	Silicon	ppm	ASTM D5185m	>50	18		
FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 3.27 1.35 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE LIGHT Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Godor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2	Sodium	ppm	ASTM D5185m		0		
VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE LIGHT Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Potassium	ppm	ASTM D5185m	>20	6		
VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE LIGHT Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Codor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	FLUID DEGRAD	OATION	method	limit/base	current	history1	history2
White Metal scalar *Visual NONE LIGHT Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Odor scalar *Visual >0.2 NEG Emulsified Water scalar *Visual >0.2 NEG	Acid Number (AN)	mg KOH/g	ASTM D8045	3.27	1.35		
Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual >0.2 NEG Emulsified Water scalar *Visual >0.2 NEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	White Metal	scalar	*Visual	NONE			
Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Yellow Metal	scalar	*Visual	NONE	NONE		
Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Precipitate	scalar	*Visual	NONE	NONE		
Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Silt	scalar	*Visual	NONE	NONE		
Appearance scalar *Visual NORML NORML COdor scalar *Visual NORML NORML NORML CODOR NORML NORML CODOR NORML NORML CODOR NORML NORML CODOR NORML CODOR NORML NORML CODOR	Debris	scalar	*Visual	NONE	NONE		
Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Sand/Dirt	scalar	*Visual	NONE	NONE		
Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Appearance	scalar	*Visual	NORML	NORML		
Emulsified Water scalar *Visual >0.2 NEG	Odor		*Visual	NORML	NORML		
	Emulsified Water						
	Free Water						



OIL ANALYSIS REPORT







Laboratory Sample No. Lab Number

Unique Number Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0098424 : 05904500 : 10565856

Received : 21 Jul 2023 Diagnosed : 26 Jul 2023

Diagnostician : Don Baldridge

Certificate L2367 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)

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