

## **OIL ANALYSIS REPORT**

Sample Rating Trend





Machine Id WL0442 Component

Fluid

Transfer Case

### PETRO CANADA PRODURO TO-4 SAE 30 (9 LTR)

### 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.

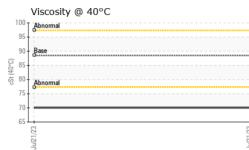
#### Fluid Condition

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

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0087342		
Sample Date		Client Info		21 Jul 2023		
Machine Age	hrs	Client Info		2232		
Oil Age	hrs	Client Info		2232		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>500	3		
Chromium	ppm	ASTM D5185(m)	>5	0		
Nickel	ppm	ASTM D5185(m)	>5	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>45	1		
Lead	ppm	ASTM D5185(m)	>150	0		
Copper	ppm	ASTM D5185(m)	>100	<1		
Tin	ppm	ASTM D5185(m)	>5	0		
Antimony	ppm	ASTM D5185(m)	>5	0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	26		
Barium	ppm	ASTM D5185(m)	0	0		
Molybdenum	ppm	ASTM D5185(m)	0	4		
Manganese	ppm	ASTM D5185(m)	9	0		
Magnesium	ppm	ASTM D5185(m)	1	70		
Calcium	ppm	ASTM D5185(m)	3131	2683		
Phosphorus	ppm	ASTM D5185(m)	1194	893		
Zinc	ppm	ASTM D5185(m)	1281	972		
Sulfur	ppm	ASTM D5185(m)	3811	2931		
Lithium	ppm	ASTM D5185(m)		<1		
			limit/booo	ourroot	biotomut	bistory ()
CONTAMINAN			limit/base	current 4	history1	history2
Sodium	ppm	ASTM D5185(m) ASTM D5185(m)	>85			
Potassium	ppm	ASTM D5185(m)	. 00	<1		
	ppm	( )	>20	<1		
VISUAL		method	limit/base		history1	history2
White Metal	scalar	Visual*	NONE	NONE		
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		
Free Water	scalar	Visual*		NEG	 Submitted Dur O	
5:29:04) Rev: 1					Submitted By: C	naries Bergeron



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	FLUID PROP	ERTIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt A	STM D7279(m)	88.5	70.0		
	SAMPLE IMA	GES	method	limit/base	current	history1	history2
53	Color					no image	no image
Jul21.23	Bottom					no image	no image
	GRAPHS						
12	Iron (ppm)			351	Lead (ppm)		
10	000 - Severe			30			
	800 - Abnormal			250 E 200 E 150			
<u>□</u>	100 - Abnormal			8 150 100			
2	200				1		
	0				1		
	Jul21/23			Jul21/23	Jul21/23		
1	Aluminum (ppm)	)		13	Chromium (pp	om)	
	80			10	Severe		
5	60 -				8		
ud .	40 - Abnormal			Шd	Abnormal		
	20 -				2-		
	0			/23			
	Jul21/23			Jul21/23	Jul21/23		
2	Copper (ppm)			20	Silicon (ppm)		
	200 Severe			15	Parison .		
E <sup>1</sup>	50						
	00 - Abnormal			톮 100	T 1		
	50 -			51	D		
				/23	2 2		
	Jul21/23			Jul21/23	Jul21/23		
1	Viscosity @ 40°C	2		3000	Additives		
	95			250	calcium		
	90 Base				D -	]	
ŭ				<u>ل</u> 1500	D		
	75			100	D -		
	65 L						
	Jul21/23			Jul21/23	Jul21/23		
Correction Sample No. 17025:2017 Lab Number corredited aboratory Test Package	: WearCheck - C8-1 : GFL0087342 : 02572404 : 5617455 : MOB 1	Received Diagnosed Diagnostic	:26 :26 :ian :We	Jul 2023 Jul 2023 s Davis	.7L 5H9 <b>GFL Envi</b>	17125 Mo Contact: Ch	Lafleche Road ose Creek, O CA K0C 1W arles Bergero
discuss this sample report, cc st denoted (*) outside scope o lidity of results and interpretati	of accreditation, (m)	method mod	ified, (e) te	sted at exter			on@gflenv.co (613)538-485 F

Submitted By: Charles Bergeron