

## **OIL ANALYSIS REPORT**

KEMP QUARRIES / BCS - GRAVETTE [67226]

Sample Rating Trend NORMAL



Wear

oil.

service.

Component **Rear Differential** 

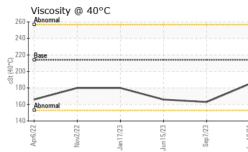
WL143

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

## DIAGNOSIS SAMPLE INFORMATION method PCA0084775 PCA0069809 PCA0086320 Sample Number **Client Info** Recommendation Resample at the next service interval to monitor. ( Sample Date Client Info 18 Jan 2024 07 Sep 2023 15 Jun 2023 Customer Sample Comment: Pm-1) Machine Age hrs **Client Info** 39571 39571 39015 Oil Age hrs Client Info 39571 38110 39015 All component wear rates are normal. Oil Changed N/A **Client Info** Changed N/A Sample Status NORMAL ABNORMAL NORMAL Contamination There is no indication of any contamination in the CONTAMINATION >.2 NEG NEG NEG Water WC Method Fluid Condition The condition of the oil is acceptable for the time in WEAR METALS ASTM D5185m >500 37 530 392 Iron ppm Chromium ASTM D5185m >3 ppm <1 <1 <1 Nickel ASTM D5185m >3 0 -1 $\cap$ ppm Titanium ASTM D5185m >2 ppm <1 <1 <1 0 Silver >2 0 0 ppm ASTM D5185m Aluminum ppm ASTM D5185m >30 1 6 5 ASTM D5185m >13 1 0 Lead <1 ppm 2 19 18 Copper ppm ASTM D5185m >103 Tin ASTM D5185m >5 <1 <1 ppm <1 0 0 Vanadium ASTM D5185m <1 ppm 0 Cadmium 0 ppm ASTM D5185m 0 **ADDITIVES** 2 0 Boron ASTM D5185m <1 <1 ppm ASTM D5185m 0 0 Barium ppm 0 0 Molvbdenum ASTM D5185m 0 1 0 1 ppm ASTM D5185m 0 <1 4 3 Manganese ppm Magnesium ASTM D5185m 9 18 27 25 ppm ASTM D5185m 3114 3668 3552 Calcium ppm 3137 Phosphorus ASTM D5185m 1099 960 1079 1044 ppm Zinc ppm ASTM D5185m 1245 1127 1361 1348 Sulfur ASTM D5185m 7086 4299 6492 6365 ppm CONTAMINANTS Silicon ppm ASTM D5185m >100 12 33 30 Sodium ASTM D5185m 1 <1 0 ppm Potassium ASTM D5185m >20 0 0 <1 ppm VISUAL NONE White Metal \*Visual NONE NONE NONE scalar \*Visual NONE NONE NONE NONE Yellow Metal scalar \*Visual NONE NONE Precipitate scalar NONE NONE Silt scalar \*Visual NONE NONE NONE NONE Debris NONE NONE scalar \*Visua NONE NONE Sand/Dirt scalar \*Visual NONE NONE NONE NONE \*Visual NORML NORML NORML NORML Appearance scalar NORML NORML NORML NORML Odor scalar \*Visual **Emulsified Water** scalar \*Visual >.2 NEG NEG NEG NEG Free Water scalar \*Visual NEG NEG



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		FLUID	PROP	ERTIE	S meth	nod	limit/base	Э	current	histo	ory1	histor	'y2
		Visc @ 40	0°C	cSt	ASTM	D445	213.9	18	35	163		166	
		SAMP	LE IMA	GES	meth	nod	limit/base	9	current	histo	ory1	histor	ʻy2
/23	024	Color						n	o image	no ima	age	no imag	je
Jun15/23 Sep7/23	Jan 18/24	Bottom						n	o image	no ima	age	no imag	je
		GRAP	HS										
	100	Iron (pp	om)					Lea <sup>30</sup> T	d (ppm)				
	80	00 - Severe						25 - Seve	re				
	E 60	Abnormal						20 - 15 - Abn	ormal			· · · · · · · · · · · · · · · · · · ·	
	40							10		· · · · · · · · · · · · · · · · · · ·	1 		
	20	-	-					5					
		Apr6/22	Nov2/22 -	Jan17/23 -	Jun 15/23 -	Sep 7/23 +	Jan 18/24	Apr6/22	Nov2/22 -	Jan 17/23 -	Jun15/23 -	Sep7/23.	
					Jun	3	Jan		_	,	վսո	Se	
	e		ım (ppm	)		÷		7 Seve	omium (p	pm)			
		50						6 - <b>0</b>					
	u dd	1			1			a 4 Abn	ormal				
	2	20-						2					
						_	-				-		_
		Apr6/22	Nov2/22	Jan 17/23	Jun15/23	Sep 7/23	Jan 18/24	Apr6/22	Nov2/22	Jan 17/23 -	Jun15/23	Sep 7/23	
		Copper		5 L	7	03	Ja P		con (ppm)	Ъ	٦٢	05	
	20	<sup>00</sup> Severe	(PP)		1	1		200 Seve		1			
	15	50						150-					
	표 10	0 - Abnormal					- Md	100 - Abn	ormal				
	5	50 -						50		1			
		0	2	en			4		2				
		Apr6/22	Nov2/22	Jan 17/23	Jun 15/23	Sep 7/23	Jan 18/24	Apr6/22	Nov2/22	Jan 17/23	Jun15/23	Sep7/23	
		Viscosity	/ @ 40°C		,				litives	,	,		
	26	-	1			1		500 I	calcium			-	
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	16							500		THE REPORT OF THE PARTY OF		and a case of a spin state	-
	14		122	/23	/23			500	/22	/23	/23	/23	
		Apr6/22	Nov2/22	Jan 17/23	Jun15/23	Sep 7/23	Jan18/24	Apr6/22	Nov2/22	Jan 17/23	Jun15/23	Sep7/23	
AB Samı Lab I Uniqu	ole No. Number le Number Package	: WearChe : PCA0069 : 06076453 : 10858544 : MOB 1 ntact Cust	809 3 1	Recieve Diagno Diagno	ed sed stician	: 31 J : 02 F : Don	an 2024 eb 2024 Baldridge	13		arries - Ben vette@be	15 Sulphi	<b>y Stone - Gr</b> 100 N Hw ur Springs US 72 Cont	/y s, / 27 tao

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