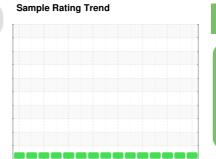


OIL ANALYSIS REPORT





NORMAL

Fluid

KEMP QUARRIES / PRYOR STONE [66213] WL138 Component **Front Left Final Drive**

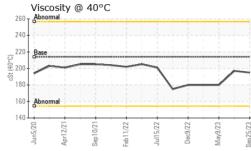
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

PETRO CANADA PROL		· · ·	Jun2020 Ap	vr2021 Sep2021 Feb20	122 Jul2022 Dec2022 May20	23 Sep2023	
DIAGNOSIS	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		PCA0084268	PCA0084539	PCA0083954
Resample at the next service interval to monitor. (Sample Date		Client Info		25 Sep 2023	26 Jul 2023	09 May 2023
ustomer Sample Comment: Pm2 performed. All	Machine Age	hrs	Client Info		32588	32144	31544
I samples taken. Engine oil, transmission oil, and I filters changed.)	Oil Age	hrs	Client Info		1044	32144	2205
o ,	Oil Changed		Client Info		Oil Added	N/A	Changed
/ear	Sample Status				NORMAL	NORMAL	NORMAL
Il component wear rates are normal.	WEAR META	LS	method	limit/base	current	history1	history2
here is no indication of any contamination in the	Iron	ppm	ASTM D5185m	>800	12	11	39
roil. Fluid Condition The condition of the oil is acceptable for the time in service.	Chromium	ppm	ASTM D5185m		0	0	<1
	Nickel	ppm	ASTM D5185m		0	0	0
	Titanium	ppm	ASTM D5185m		0	<1	<1
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum		ASTM D5185m		0	0	3
	Lead	ppm	ASTM D5185m		۰ <1	0	0
		ppm	ASTM D5185m				2
	Copper	ppm			1	<1	
	Tin	ppm	ASTM D5185m	>8	0	0	1
	Vanadium	ppm	ASTM D5185m		0	<1	0
	Cadmium	ppm	ASTM D5185m		0	0	0
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	2	<1	0	0
	Barium	ppm	ASTM D5185m	0	0	0	0
	Molybdenum	ppm	ASTM D5185m	0	1	2	2
	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
	Magnesium	ppm	ASTM D5185m	9	19	14	24
	Calcium	ppm	ASTM D5185m	3114	3403	3649	3516
	Phosphorus	ppm	ASTM D5185m	1099	899	957	1056
	Zinc	ppm	ASTM D5185m		1119	1149	1308
	Sulfur	ppm	ASTM D5185m	7086	4074	4703	5000
	CONTAMINA	NTS	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185m	>400	13	15	18
	Sodium	ppm	ASTM D5185m		<1	<1	2
	Potassium	ppm	ASTM D5185m	>20	0	0	<1
	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
	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	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual	20.L	NEG	NEG	NEG
	FLUID PROP			limit/base			
			method			history1	history2
Papart Id: KEMPRY IMUSCARI 05060020 (Caparatad: 10/12/202)	Visc @ 40°C	cSt	ASTM D445	213.9	195	197	180 Submitted By

Report Id: KEMPRY [WUSCAR] 05969939 (Generated: 10/12/2023 20:20:28) Rev: 1



OIL ANALYSIS REPORT



200 150 E.100		(Feb11/22	Juli5/22	Dec9/22 -	May923	Sep 25/23	30 25- 20- 監15- 10- 5- 0-	no image	m)	no im	nage		no imag	
CRAP Iron (pr	om)		Juli5/22	Dec9/22	May9123	#25/23	30 - 25 - 20 - Ed: 15 - 10 - 5 -	Lead (pp)	m)				no imag	le
Iron (pr 1400 1400 10	om)		Jul15/22	Dec9/22	May9/23	p25/23	30 - 25 - 20 - Ed: 15 - 10 - 5 -	Abnormal		22	22			
1600 1400 1200 1000 600 400 00 200 00 200 00 200 00 200 00	Sep10/21		Jult5/22	Dec3/22	May9/23	p25/23	30 - 25 - 20 - Ed: 15 - 10 - 5 -	Abnormal		22	22			
1400 1200 100 1000 1			Juli 5/22	Dec9/22	May9/23	p25/23	25 - 20 - Ed 15 - 10 - 5 -	Abnormal	21	22	22			
Abnormal Abnorm			Jul15/22	Dec9/22	May9/23	p25/23	법 15- 10- 5-		21	22	22			
4 00 400 200 0 02 50 400 0 02 50 400 100 400 100 400 100 100 10			Jul15/22	Dec9/22	May9/23	sp25/23	10. 5.		21	22	22			
400 200 0 0 0 0 0 0 0 0 0 0 0 0			Jul15/22	Dec9/22	May9/23	sp25/23	5.		21	22	22			
0 02/5um 0 02/5um Aluminu 200 500 500 150			Jul15/22	Dec9/22	May9/23	sp25/23	0	21	21	22	22			
Aluminu 200 500 500 500			Jul15/2	Dec9/2	May9/2	sp25/2				2	2	~		
200 150 E.100)				ŝ		Jun5/20 Apr12/21	Sep10/21	Feb11/22	Jul15/22	Dec9/22	May9/23	01.00
150 -								Chromiur	n (ppr					
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톱100 - · · · · · ·							20-							
Abnormal			1				Ed 15 -	Abnormal						
50-								- O						
		5	2	2			0-			2	2	7		
Jun5/2(Apr12/2	Sep 10/2	eb11/2	Jul15/2	Dec9/21	May9/2:	ep25/2:		Jun5/2(Apr12/2	Sep 1 0/2	eb11/2	Jul15/2	Dec9/2	May9/2;	00.70.00
Copper		_								_				
200 Severe								Severe	1					1
150-														
Abnormal							mqq	Abnormal						
50-							200-							
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Jun5/20 Apr12/2	sep 10/2	eb11/22	Jul15/22	Dec9/22	May9/23	ep25/23		Jun5/20 Apr12/2	ep10/2	eb 11/22	Jul15/22	Dec9/22	May9/23	
Viscosit			,		-	\$				LL.	,		-	c
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100			1	_			1500-	- and states in a little of the same						
140							1000 · 500 ·	. PARTAL PARTY PAR	Lagrand Street, Street		144.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4		CENTRE STREET	alenten
Jun5/20	tep 10/2	eb 11/22	Jul15/22	Dec9/22	/lay9/23	ep25/23		Jun5/20 Apr12/2	ep 10/2	eb 11/22	Jul15/22	Dec9/22	/lay9/23	00000
: PCA0084 : 0596993 : 1068188 : 1068188 : MOB 1	1268 9 9	Rece Diag Diag	eived nosec nostic	d ;ian	: 04 O : 09 O : Don	ct 202 ct 202	3 3	Ке	mp Qı		-	1050) E 520 Pryor US 74 Cont	0 R , O 136 act
	Copper Copper	Abnormal Abnormal Copper (ppm) Copper (pp	Abnormal Copper (ppm) Copper	Abnormal Copper (ppm) Copper	Abnormal Copper (ppm) Copper	Abnormal Abnormal Copper (ppm) Copper (pp	<pre>umula umula u</pre>	¹⁵⁰ ¹⁶⁰	¹⁵⁰ ¹⁶⁰	WearCheck USA - 501 Madison Ave., Cary, NC 27513 WearCheck USA - 501 Madison Ave., Cary, NC 27513 WearCheck USA - 501 Madison Ave., Cary, NC 27513 Kemp Qui to Statistican : Don Baldridge : MOB 1	¹⁵⁰ ¹⁶⁰	¹⁵⁰ ¹⁶⁰	Silicon (ppm) Copper (ppm) Co	Solution (ppm) Copper (ppm) C