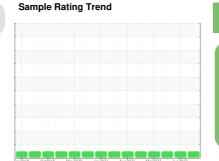


# **OIL ANALYSIS REPORT**





NORMAL

### Area KEMP QUARRIES / BCS - GRAVETTE [66776] wl125 Component

Rear Right Final Drive

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

SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0069841	PCA0086370	PCA008675
Sample Date		Client Info		21 Dec 2023	16 Jun 2023	12 Jan 2023
Machine Age	hrs	Client Info		399020	39423	38868
Oil Age	hrs	Client Info		299020	39423	38868
Oil Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINA	TION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR META	LS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>800	22	9	8
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>15	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>75	2	0	1
Lead	ppm	ASTM D5185m	>10	0	<1	<1
Copper	ppm	ASTM D5185m	>75	8	3	2
Tin	ppm	ASTM D5185m	>8	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	6	4	6
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	2	2	2
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	9	32	31	32
Calcium	ppm	ASTM D5185m	3114	3029	3071	2977
Phosphorus	ppm	ASTM D5185m	1099	1038	1040	963
Zinc	ppm	ASTM D5185m	1245	1268	1287	1265
Sulfur	ppm	ASTM D5185m	7086	5483	5695	5941
CONTAMINA	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>400	7	5	6
Sodium	ppm	ASTM D5185m		0	0	<1
Potassium	ppm	ASTM D5185m	>20	2	1	0
VISUAL		method	limit/base	current	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	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		NEG	NEG	NEG
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## DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Pm4 )

#### Wear

All component wear rates are normal.

#### Contamination

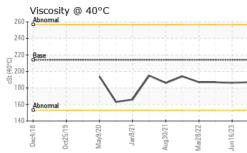
There is no indication of any contamination in the oil.

#### **Fluid Condition**

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



# **OIL ANALYSIS REPORT**



	FLUID PROPI	ERTIES	s method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	213.9	187	186	187
	SAMPLE IMA	GES	method	limit/base	e current	history1	history2
22-	Color				no image	no image	no image
Aug30/21 Mai28/22 Jun16/23	Bottom				no image	no image	no image
	GRAPHS					:	- -
	Iron (ppm)				Lead (ppm)		
	1500 - Severe				25 - Severe		
1	a 1000 - Abnormal			E d	20		
	Abnormal 500				10 - Abnormal		
					5	$\sim$	
	Dec4/18	Jan 8/21	Aug30/21- Mar28/22 -	Jun16/23 -		May9/20 - Jan8/21 - Aug30/21 -	Mar28/22 - Jun16/23 -
	□		Au Ma	лГ	Chromium (p		Ma
	200 Severe	I			<sup>30</sup> [smooth		
	150				25		
	Abnormal				15 10 Abnormal		
	50 -				10		
	20-119-1-120-0	/21	22	23		/21 /21	22
	Dec4/18 0ct25/19 May9/20	Jan8/21	Aug30/21 Mar28/22	Jun16/23	Dec4/18 0ct25/19	May9/20 Jan8/21 Aug30/21	Mar28/22 Jun16/23
	Copper (ppm)			10	Silicon (ppm)	)	
	Severe			8	00 - Severe		
	ق_100-			E C	00-		
	Abnormal 50+			4	00 - Abnormal		
		~		2	00		
	Dec4/18 -	Jan8/21	Aug30/21 Mar28/22	Jun16/23	Dec4/18 0ct25/19	May9/20 Jan8/21 Aug30/21	Mar28/22 Jun 16/23
	Viscosity @ 40°C		Aı Më	٦L	Additives	Au . N	, Mi Uulu
	260 Abnormal			35	<sup>00</sup> T		<u> </u>
	240 - 220 - Base			25	00 - phosphor	us	
	G 220 - Base € 200 - ₹ 180 -	~	~	E <sup>20</sup>		2	
	* 180 160 - Abnormal				00		and the state of the second
	140	/21	22 22	23		20 /21 /21	2223
	Dec4/18 Oct25/19 May9/20	Jan 8/21	Aug30/21 Mar28/22	Jun16/23	Dec4/18 -	May9/20 Jan8/21 Aug30/21	Mar28/22 Jun16/23
Laboratory Sample No. Lab Number Unique Number		501 Mad Recieve Diagnos Diagnos	ed : 10 sed : 12	ary, NC 275 <sup>.</sup> Jan 2024 Jan 2024 ean Felton	13 KempQ		5100 N Hwy hur Springs, <i>F</i> US 727
ate L2367 Test Package	e : MOB 1						Contac

