

OIL ANALYSIS REPORT

KEMP QUARRIES / KEMP STONE - FAIRLAND [67743] Wachine Id WL128 Component

Front Differential

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: PM-4 changed fluid)

Wear

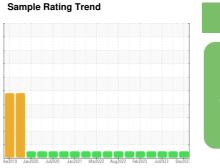
All component wear rates are normal.

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.



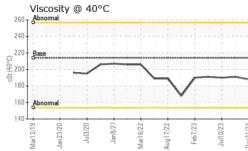


NORMAL

SAMPLE INFOR	MATION)N method limit/base		current	history1	history2			
Sample Number		Client Info		PCA0086563	PCA0084756	PCA0084605			
Sample Date		Client Info		21 Dec 2023	06 Oct 2023	10 Jul 2023			
Machine Age	hrs	Client Info		34924	80832	33887			
Oil Age	hrs	Client Info		34924	32942	33887			
Oil Changed		Client Info		Changed	N/A	N/A			
Sample Status				NORMAL	NORMAL	NORMAL			
CONTAMINAT	ION	method	limit/base	current	history1	history2			
Water		WC Method	>.2	NEG	NEG	NEG			
WEAR METAL	S	method	limit/base	current	history1	history2			
Iron	ppm	ASTM D5185m	>500	32	30	24			
Chromium	ppm	ASTM D5185m	>10	0	3	0			
Nickel	ppm	ASTM D5185m	>10	0	0	0			
Titanium	ppm	ASTM D5185m		<1	0	0			
Silver	ppm	ASTM D5185m		0	0	0			
Aluminum	ppm	ASTM D5185m	>25	2	4	2			
Lead	ppm	ASTM D5185m	>25	<1	0	0			
Copper	ppm	ASTM D5185m	>100	1	<1	<1			
Tin	ppm	ASTM D5185m	>10	<1	0	0			
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	<1	<1	1			
Barium	ppm	ASTM D5185m		0	0	0			
Molybdenum	ppm	ASTM D5185m	0	0	<1	<1			
Manganese	ppm	ASTM D5185m	0	<1	0	<1			
Magnesium	ppm	ASTM D5185m	9	17	15	14			
Calcium	ppm	ASTM D5185m	3114	3277	3502	3406			
Phosphorus	ppm	ASTM D5185m	1099	946	939	947			
Zinc	ppm	ASTM D5185m	1245	1186	1244	1169			
Sulfur	ppm	ASTM D5185m	7086	4387	5107	4814			
CONTAMINAN	ITS	method	limit/base	current	history1	history2			
Silicon	ppm	ASTM D5185m	>75	33	39	34			
Sodium	ppm	ASTM D5185m		1	0	0			
Potassium	ppm	ASTM D5185m	>20	0	2	2			
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	>.2	NEG	NEG	NEG			
Free Water	scalar	*Visual		NEG	NEG	NEG			
2·40·53) Rov: 1						Submitted By:			



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	FLUID Visc @ 40		cSt		method ASTM D445		limit/base 213.9		current 188			history1 191			history2 190			
	SAMP	ES	method			limit/base		current		nt	history1 no image			history2				
	Color						no image no image											
Jul10/23 Dec21/23	Bottom								е	no image			no image					
	GRAP	HS																
2	Iron (pp	m)							120		d (pp	m)						
	500 Severe								120 100	Severe	e							
							1		80 E 00	-								
ud 1	Abnormal								법 60 40									
	500 - A bhoimai								20	Abno	rmal							
	Mar13/19	Jul3/20	Jan8/21-	Mar16/22	7/22	Feb7/23 -	Jul10/23	Dec21/23	0	3/19	Jan 23/20	Jul3/20	Jan8/21	Mar16/22	7/22	Feb7/23	Jul10/23	
	- ·			Mar1	Aug17/22	Feb	Jul	Dec2		Mar13/19				Mar1	Aug17/22	Feb	Jul	
	Aluminu	ım (pp	om)				Chromium (ppm)											
	100 - Severe								25	Severe	e							
u d	80						1		20 Ed. 15									
	40 - Abnormal								10	Abno	rmal							-
	20								5								/	~
	Mar13/19 Jan23/20	Jul3/20	Jan8/21	Mar16/22	Aug17/22	Feb7/23	Jul10/23	Dec21/23		Mar13/19	Jan 23/20	Jul3/20	Jan8/21	Mar16/22	Aug17/22	Feb7/23	Jul10/23	
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	Viscosity 260 T Abnormal	/@4(0°C						4000	Add	itives	5						
	240								3500	-		lcium osphoru	s	~ /	~			
cSt (40°C)	220 - Base			_			1	E	3000 2500		zir		/	Y				
cSt (4	180	-			7	-		-	2500		\checkmark							
	160 - Abnormal								1000	132 martin	-			-			******	
	Mar13/19	Jul3/20 +	Jan8/21	Mar16/22	Aug17/22	Feb7/23	Jul10/23	Dec21/23	500	Mar13/19	Jan 23/20 -	Jul3/20 -	Jan8/21	Mar16/22	Aug17/22	Feb7/23	Jul10/23	
	Mar	ſ	Ъ	Mar	Bng	Fer	Jul	Deci		Mar	Jan	٦٢	Ja	Mar	BnB	E	lul	c
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Number	: 06049663	3	D	iagno	osed	:	04 J	an 2024								Fai	rland,	0
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