

OIL ANALYSIS REPORT

KEMP QUARRIES / HULBERT [66668] **TTH036**

Component **Hydraulic System**

PETRO CANADA HYDREX AW 68 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: PM-2 changed filters)

Wear

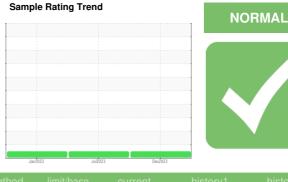
All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid.

Fluid Condition

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

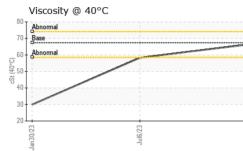


Sample NumberClient InfoPCA0109285PCA0086292PCA0086Sample DateClient Info02 Dec 202306 Jul 202330 Jan 24Machine AgehrsClient Info752569586499Oil AgehrsClient Info752569586499Oil ChangedClient InfoN/AN/AChangedSample StatusImageImageNORMALNORMALNORMAL	023
Machine Age hrs Client Info 7525 6958 6499 Oil Age hrs Client Info 7525 6958 6499 Oil Changed Client Info N/A N/A Changed	
Oil Age hrs Client Info 7525 6958 6499 Oil Changed Client Info N/A N/A Changed	
Oil Changed Client Info N/A N/A Changed	
Sample Status NORMAL NORMAL NORMAL	_
CONTAMINATION method limit/base current history1 histo	ry2
Water WC Method >0.1 NEG NEG	
WEAR METALS method limit/base current history1 histor	ry2
Iron ppm ASTM D5185m >20 8 9 19	
Chromium ppm ASTM D5185m >10 <1	
Nickel ppm ASTM D5185m >10 0 <1	
Titanium ppm ASTM D5185m 0 0 0	
Silver ppm ASTM D5185m 0 0 0	
Aluminum ppm ASTM D5185m >10 1 2 0	
Lead ppm ASTM D5185m >10 0 0	
Copper ppm ASTM D5185m >75 4 5 9	
Tin ppm ASTM D5185m >10 0 0 0	
Vanadium ppm ASTM D5185m 0 0 0	
Cadmium ppm ASTM D5185m 0 0 0	
ADDITIVES method limit/base current history1 histor	ry2
Boron ppm ASTM D5185m 0 0 0	
Barium ppm ASTM D5185m 0 0 0 0 0	
Molybdenum ppm ASTM D5185m 0 14 16 <1	
Manganese ppm ASTM D5185m 0 0 <1	
Magnesium ppm ASTM D5185m 0 227 250 2	
Calcium ppm ASTM D5185m 50 340 358 236	
Phosphorus ppm ASTM D5185m 330 474 540 292	
Zinc ppm ASTM D5185m 430 631 654 337	
Sulfur ppm ASTM D5185m 760 1729 1919 1192	
CONTAMINANTS method limit/base current history1 histo	ry2
Silicon ppm ASTM D5185m >20 4 6 16	
Sodium ppm ASTM D5185m 0 1 1	
Potassium ppm ASTM D5185m >20 1 2 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	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG



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	Visc @ 40°C	cSt	ASTM D445	67.4	66.3	58.3	29.9
	SAMPLE IMA	AGES	method	limit/base	current	history1	history2
	Color				no image	no image	no image
Juli 23 De:223	Bottom				no image	no image	no image
	GRAPHS					ļ	
	Iron (ppm)				Lead (ppm)		
	30				25 - Severe		
	Abnormal			- La constante da	20		
	10				10 - Abnormal		
	0				5		
	Jan 30/23	Jul6/23 -		Dec2/23	Jan 30/23	Jul6/23 -	
	ج Aluminum (ppm			Ď	ج Chromium (p		
	³⁰				30	φπ,	
	25 - Severe				25 - Severe		
	<u>ة</u> 15			udd	15-		
	10 - Abnormal				10 - Abnormal		
	0				0		
	Jan30/23	Jul6/23		Dec2/23	Jan 30/23	Jul6/23	
	Copper (ppm)				Silicon (ppm)		
	250 200 - Severe				50 Severe		
	150				40		
	100 Abnormal			udd	30 - 20 - Abnormal		
	50 -				10		
	0	Jul6/23		Dec2/23	0/23	Jul6/23 -	
	Jan 30/23			Dec	Jan 30/23	Jul	
	Viscosity @ 40° ⁸⁰ Abnormal	С		8	Additives		
	70 - Base			7	00 - calcium phosphor	IS	
	- 60 - Abnormal - 50			6 5	00 - zinc	and the second s	
ę	³ 40				00-	any and a second	
	30				00		
	Jan 30/23 -	Jul6/23 .		Dec2/23 .	Jan 30/23 -	Jul6/23 .	
	L ai	7		a	Lai	7	
Laboratory Sample No. Lab Number Unique Number Test Package	: WearCheck USA : PCA0109285 : 06034264 : 10789493 : MOB 1	- 501 Madi Recieve Diagnos Diagnos	d :13 sed :18	ry, NC 2751 Dec 2023 Dec 2023 In Felton	I3 Kemp (Quarries - Kemp	Stone - Hulbe 17801 Hwy 8 Hulbert, C US 7444 Contac
		rvice at 1-8					