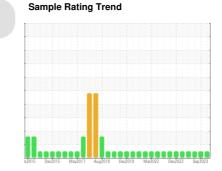


# **OIL ANALYSIS REPORT**

KEMP QUARRIES / KEMP STONE - FAIRLAND [67475]

PETRO CANADA HYDREX AW 68 (--- GAL)

SAMPLE INFORMATION method





NORMAL

### DIAGNOSIS

Recommendation

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

WL086 Component

**Hydraulic System** 

### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the fluid.

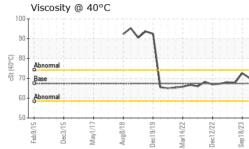
#### **Fluid Condition**

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

Sample Number		Client Info		PCA0070649	PCA0084813	PCA0084518
Sample Date		Client Info		06 Dec 2023	18 Sep 2023	18 Jul 2023
Machine Age	hrs	Client Info		55193	54650	54189
Oil Age	hrs	Client Info		55193	54650	54189
Oil Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	11	11	14
Chromium	ppm	ASTM D5185m	>10	<1	2	2
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	3	6	5
Lead	ppm	ASTM D5185m	>10	0	<1	<1
Copper	ppm	ASTM D5185m	>75	4	4	5
Tin	ppm	ASTM D5185m	>10	0	<1	<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	0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	19	18	6
Manganese	ppm	ASTM D5185m	0	0	0	<1
Magnesium	ppm	ASTM D5185m	0	296	269	97
Calcium	ppm	ASTM D5185m	50	476	460	301
Phosphorus	ppm	ASTM D5185m	330	539	621	415
Zinc	ppm	ASTM D5185m	430	699	799	533
Sulfur	ppm	ASTM D5185m	760	1837	2126	1295
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	21	18	18
Sodium	ppm	ASTM D5185m		0	<1	<1
Potassium	ppm	ASTM D5185m	>20	4	3	3
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



## **OIL ANALYSIS REPORT**



	FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
$\sim$	Visc @ 40°C	cSt	ASTM D445	67.4	70.1	72.6	67.7
	SAMPLE IMA	GES	method	limit/base	current	history1	history2
Aug8/18	Color				no image	no image	no image
	Bottom				no image	no image	no image
	GRAPHS						
	Iron (ppm)			3	Lead (ppm)		
	30 -			2	Caluada		-
	E 20 - O			2 톱 1			
	10				0 + dbnormal		-
	$\sim$	N/	$\sim\sim$		5		
	Feb9/15	Aug8/18 -	Mar14/22	Sep18/23	Feb9/15	Aug8/18	Mar14/22
	_	Au Dec	Mar	Sep			Mar Dec Sep
	Aluminum (ppm)			3	Chromium (p	pm)	
	25 - Severe			2			
	§ 15-			<u>E</u> 1	5		
	10 - Abnormal	11.01.00		- 1			
		5			0		
	Feb9/15 Dec3/15 May1/17	Aug8/18 - Dec19/19 -	Mar14/22 Dec12/22	Sep18/23.	Feb9/15 Dec3/15 May1/17	Aug8/18 Dec19/19	Mar14/22 Dec12/22 Sep18/23
	Copper (ppm)		2 0	63	Silicon (ppm)		2 0 0
	250 Severe			6			
	150			4			
	100			Md 3	Abaamaal	^	
	50 -					12	~
	1 15 15	61	22	23			22
	Feb9/15 -	Aug8/18 Dec19/19	Mar14/22 Dec12/22	Sep 18/23	Feb9/15 - Dec3/15 - May1/17 -	Aug8/18 -	Mar14/22 Dec12/22 Sep18/23
	Viscosity @ 40°C			200	Additives		
	90	~		150	calcium		
cst (40°C)	80 - Abnormal	1			zinc		
	70 - Base	<u> </u>		▲ E 100		1mg	A
	60 - Abnormal			50		E	
	6053/15	Aug8/18 -	4/22	Sep18/23	Feb9/15	Aug8/18 -	Mar1 4/22 + Dec1 2/22 - Sep1 8/23 +
	Feb Dec May	Aug Dec1	Mar14/22 Dec12/22	Sep1	Feb Dec May	Aug Dec1	Mar14/22 Dec12/22 Sep18/23
Laboratory Sample No. Lab Number Unique Number Test Package	: WearCheck USA - : PCA0070649 : 06034265 : 10789494 : MOB 1	Recieved Diagnose Diagnost	d : 13 ed : 18 tician : Dor	Dec 2023 Dec 2023 n Baldridge	3 Kemp C		Stone - Fairland 18350 S 590 Rd Fairland, OK US 74343 Contact:
o discuss this sample report, c - Denotes test methods that ar tatements of conformity to speci	re outside of the ISO	17025 sco	pe of accrec	litation.	(JCGM 106:2012		kempstone.com T: F: